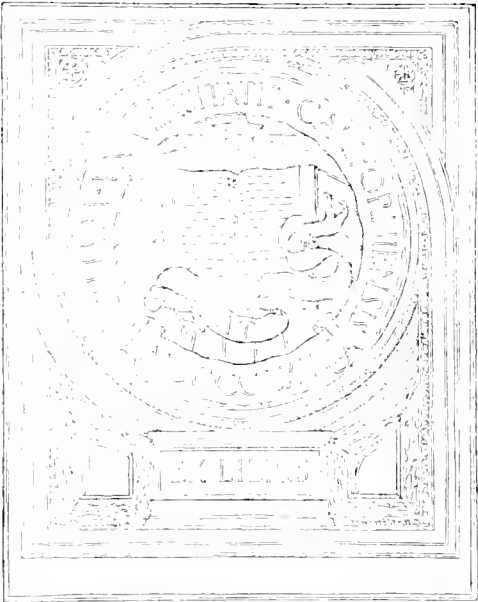
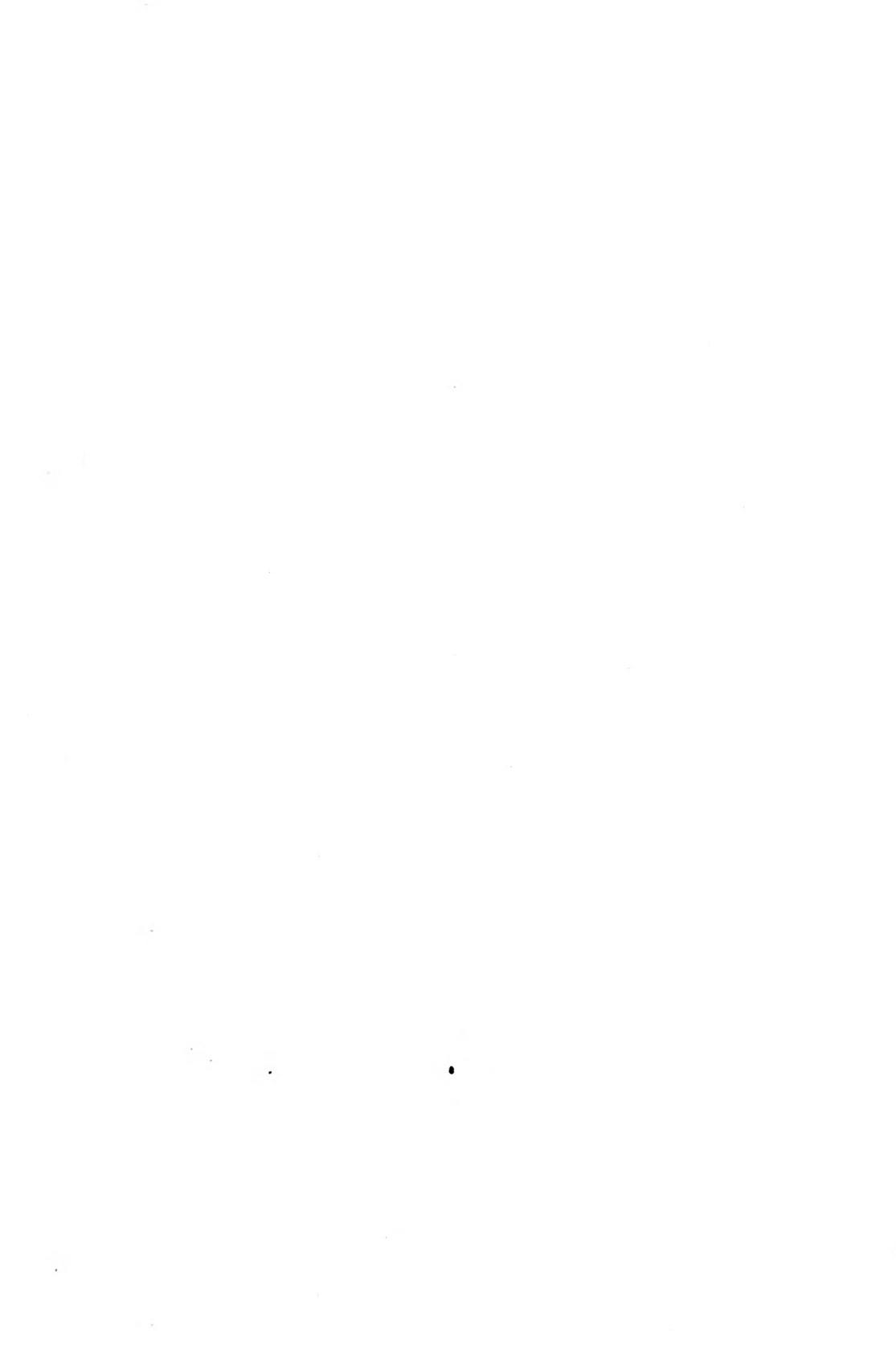




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# GREENLAND

## BY THE POLAR SEA

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R. E. O.

BEAR-HUNT

# GREENLAND BY THE POLAR SEA

THE STORY OF THE THULE EXPEDITION  
FROM MELVILLE BAY TO CAPE MORRIS JESUP  
BY KNUD RASMUSSEN

TRANSLATED FROM THE DANISH BY  
ASTA AND ROWLAND KENNEY

WITH PREFACE BY ADMIRAL SIR LEWIS BEAUMONT, G.C.B.

WITH NUMEROUS ILLUSTRATIONS IN BLACK AND WHITE,  
EIGHT COLOUR PLATES, AND MAPS



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ADDITIONAL TO VOL.  
HOMAGE PRESENTED



## PREFACE

“GREENLAND by the Polar Sea” is the story, now introduced to English readers, of Mr. Knud Rasmussen’s last expedition to the Polar shores of North Greenland.

He counts it as his Fourth Thule Expedition, which shows how active and persevering has been his exploration of North Greenland since 1910, when he first formed his base of operations, and a trading station, at North Star Bay, and gave it the name of THULE. Two of these remarkable expeditions were sledge journeys across the inland-ice to the north-eastern and northern coasts of Greenland which yielded valuable results, clearing up some geographical doubts, and practically linking up the eastern and western discoveries of former explorers. Knud Rasmussen may confidently be said to be a very special and exceptionally favoured explorer of these regions, for not only was he born in Greenland and lived there as a boy, but his life among the Greenlanders and Eskimos, his perfect knowledge of their language, his admiration of their character, courage, and loyalty, and his intense desire to be the historian of their origin, traditions, and future development have, in a large measure, inspired him with the explorer’s enthusiasm and have made him feel it to be possible, with slender means and limited resources, to complete the work begun by the far more costly expeditions which have gone before. These advantages, however, would have availed nothing without Knud Rasmussen’s own personal qualities as an explorer—every page of the narrative shows his high capacity and thoughtfulness as a commander, his resourcefulness and daring as a leader, and the splendid courage and power of endurance which carried him through a time of extreme trial and responsibility. It was his firm support and example which saved the party from death on the return journey.

## PREFACE

To those readers who are not familiar with the physical conditions of the immense mass of land known as Greenland it may be of use to explain that the inhabitants of the larger south half are spoken of as Greenlanders and those to the north of Melville Bay as Polar Eskimos or Arctic Highlanders. The inland-ice forms a barrier between the two, so that communication between them can only be made by ship.

Never before has the Arctic Highlander been made known to us in such intimate detail and with such true and affectionate understanding of his life and character as Rasmussen here gives us ; he speaks as one of them, who has lived their life and shared their experiences, and to whom, as a people, he has become deeply attached. No wonder then that never before has an explorer been rewarded with such unstinted and devoted service as he receives from them. It is well to make this point clear, which Rasmussen in his narrative so modestly accepts as natural and does not emphasize. Early expeditions in those regions used one or two Eskimos as hunters and dog-drivers, and gained their experience of Arctic life at great cost and with but small results. Peary, in his twenty-four years of patient and determined effort to discover the hidden secrets of the Polar Basin, advanced step by step to the knowledge of the Eskimo's character and the value of his hunting craft and wonderful travelling instinct, but Rasmussen alone has led an important and successful expedition equipped and conducted entirely in Eskimo fashion and maintained, in its long and adventurous journey, by Eskimo hunting. It is only such a combination of European leadership and skill, adapted to native craft and conditions, that could have made such an extended exploration possible to him. The interest of the narrative is great, and sustained at a high level by the literary charm of the descriptions and the unaffected light and shade which runs through the whole story. It is the mark of a leader to keep his party in good spirits ; it is the duty of the historian to show upon whom fell the responsibility and the decisions in emergencies. It was right to call it a great adventure, but Rasmussen, in the spirit of the true explorer, says : " The risk one runs on such expeditions (when their lives

## PREFACE

depended upon the game found by hunting) was quite clear to me ; but the mind never occupies itself with the dangers when one is setting out. Every Polar traveller is aware of his risks when he leaves his home to set foot on unknown shores ; and thus it was also with us. All my comrades greeted my plans with enthusiasm, and every man was inspired with one thought only : the certainty of success." It was in this spirit that they set out.

Rasmussen's tribute to the work done by his predecessors in Arctic exploration is most generous and discriminating ; he shows that he understood their difficulties, though they were not his in the same way, and what they accomplished he is eager to recognize and admire. They, or such of them as remain, in their turn are glad and ready to say that what he and his companions have added to the sum of Polar knowledge by their detailed mapping of the coast-lands—the fauna, flora, and geological formation of the north-western section of Greenland and its connection with the discoveries of the eastern coasts—has set the crown on the labours of those who have toiled before him in the same field, and that his fine achievement has for ever put him in the front rank of Polar explorers.

LEWIS BEAUMONT.



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## INTRODUCTION

**I**N the year 1910, at North Star Bay, in North Greenland, I founded an Arctic Station wherefrom I could explore the regions which as yet had not been closely examined. The first result from this station was the first Thule Expedition. The various expeditions which subsequently went out with this station as their base I have therefore named after the station, Thule.

On the first Thule Expedition in 1912, when the route was laid across the inland-ice of Greenland from Clements Markham Glacier in the mouth of Inglefield Gulf on the west coast to Denmark Fjord on the east coast, we forced our way through Independence Fjord into the land connecting Greenland and Peary Land, and by charting we established that the channel which Robert E. Peary thought he had discovered between Independence Fjord on the north-east side and Nordenskjöld Inlet on the north-west side was non-existent.

Because of the long journey, more than 1,000 kilometres across the inland-ice, and the conditions which made progress difficult in the neighbourhood of Denmark Fjord, we did not succeed in pushing quite through from the recently discovered Adam Biering Land to the vicinity of Nordenskjöld Inlet and Sherard Osborne Fjord. At the time when the decision to commence the return journey was made we had spent more than four months of incessant and very strenuous journeying through unknown regions, and out of consideration both for ourselves and our dogs we found it necessary to attempt the homeward journey across the inland-ice to my station Thule by North Star Bay, and postpone the exploration of the unknown districts of Greenland until the time when the work could be recommenced with renewed strength.

## INTRODUCTION

In the winter of 1914 the first attempt to realize our plans was made, with Peter Freuchen, my cartographer of the first Thule Expedition, as chief ; but a fall through a glacier crevasse during the ascent on to the inland-ice forced him to turn back, and later on, owing to his theodolite having been destroyed by the fall, it had been impossible for him to get away.

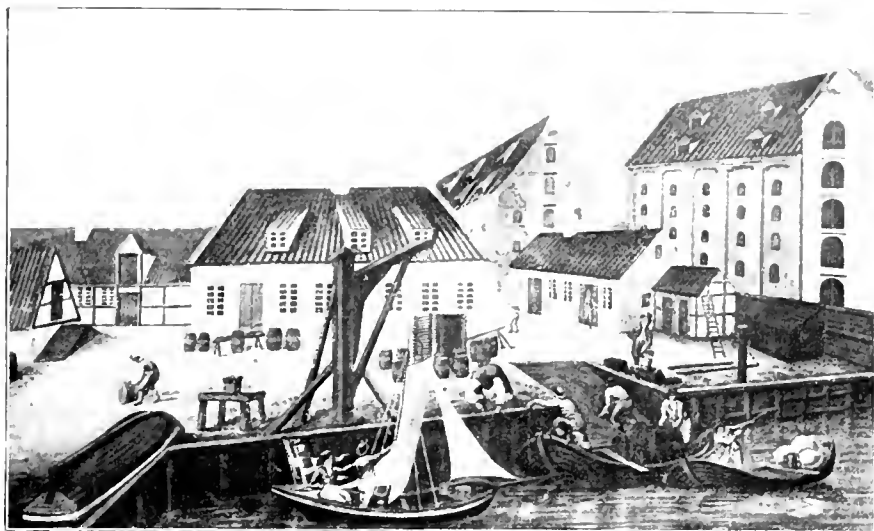
Meanwhile this expedition stood like an unredeemed pledge from my Arctic Station, and as, for various practical reasons, it must be finished with before I commenced my ethnographical voyage to the American Eskimos (the fifth Thule Expedition—the Danish Expedition to the Arctic North America), which would last several years, I decided to make an attempt to realize it in the year 1916.

It will be the main object of this expedition to survey and chart the last unknown reach of Greenland's north coast on the stretch between St. George Fjord and de Long Fjord. We shall, of course, with special keenness penetrate into the connecting land between Nordenskjöld Inlet and Independence Fjord.

The survey of the districts to which we are going will, in addition to the geographical result, present very interesting ethnographical problems, as it will be of importance to the theory of the Eskimos' wanderings to establish whether or not in the above-mentioned big fjords Eskimo winter-houses are to be found. As is known, tent-rings have been found in Peary Land, but never winter-houses. The northern border of the winter-houses is, on the east coast of North Greenland, Sophus Müller Point and Eskimo Point, respectively in Amdrup and Holm Land, whilst the northern border on the west coast is the vicinity of Humboldt's Glacier and Lake Hazen in Grant Land. Thus, for a complete knowledge of the Eskimos' wanderings, an examination of the great fjords on Greenland's north coast is wanting.

Of the geological tasks which the expedition may be faced with, I will merely mention the following : Whilst the whole of Western and Eastern Greenland during the last century has been geologically surveyed by various expeditions, the stretch

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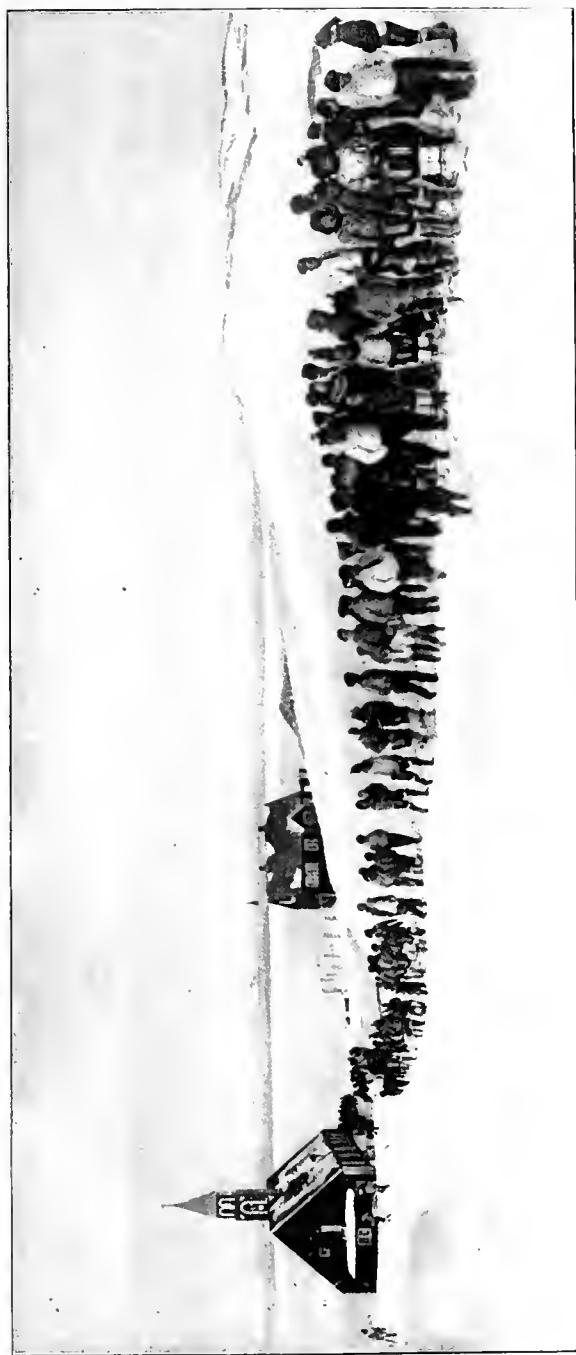


TRANGRAVEN: THE HARBOUR FOR THE WHOLE MERCHANT FLEET OF GREENLAND



THE COLONY: EGEDESMINDE (NORTH GREENLAND)

S. L. Møller



S. A. Møller

LEAVING THE CHURCH AT JACOBHAVN

The Greenlanders are keen church goers, seldom missing an opportunity for devotion and hymn singing.



## INTRODUCTION

from Sherard Osborne Fjord to Peary Land, with the latter's unknown fjords, still stands as the missing link between the east and the west coast; until these regions have been examined no complete picture of Greenland can be formed. And just as the coasts and fjords up here at the northern extremity are still waiting to be charted, so the keystone of the journeys of geological exploration can only be laid through an examination of these regions.

In addition to the work which I have now outlined, careful meteorological diaries will be kept during the whole of the expedition, and botanical and zoological collections will be made.

This expedition, as the first Thule Expedition, will throughout be equipped in Eskimo fashion, so that we can live by hunting whilst at the same time we attend to our scientific interests.

The expense is met by my station Thule, which is controlled by a committee consisting of—

Ingeniör M. Ib. Nyeboe, Chairman.

Grosserer Chr. Erichsen.

Lektor Chr. Rasmussen.

The scientific work which is being done, and which also in the future will be done, from this station has made it desirable that we should be in more direct communication with scientists, wherefore a scientific committee has been formed, consisting of—

Professor Dr. phil. H. Jungersen.

Kaptajn I. P. Koch.

Professor O. B. Böggild.

Professor H. P. Steensby.

Museumsinspektör, Dr. phil. C. H. Ostenfeld.

Originally I had intended to undertake this expedition with only one companion, the Danish geologist Lauge Koch, M.A. We left Copenhagen on the 1st of April, 1916, and reached Thule by the middle of June, but continual storms and uncommonly difficult travelling conditions forced us to postpone the journey until the following spring. Meanwhile, in the course

## INTRODUCTION

of the summer the old expedition ship the *Danmark* called at my station on its way to Etah to fetch the American Crockerland Expedition, which for several years had wintered there. On board this ship was a Swedish scientist, Dr. Thorild Wulff, whose original field of labour comprised only the districts round Smith Sound and Melville Bay ; but when Dr. Wulff heard that we had postponed our expedition until the following year, he announced himself with great enthusiasm as a fellow-member for the sledge journey in the spring.

His name as a botanist, and his expert knowledge of the Arctic flora, made it a matter of course that he should be accepted as a member of the proposed expedition to regions which had never been visited by experts.

The expedition then wintered at my station Thule, being constantly in training by sledge journeys, which reached to Etah in the north and right down to Upernivik in the south. It will merely lead to a repetition of the experience of other expeditions if I describe our excursions during the period whilst we were waiting for the light—that is, from October to February. And as it cannot be presumed that all who may read this book know anything about the Polar Eskimos, I will instead attempt to give a sketch of the people whose ways of finding a subsistence and whose travelling technique was the base on which we built our great journey.

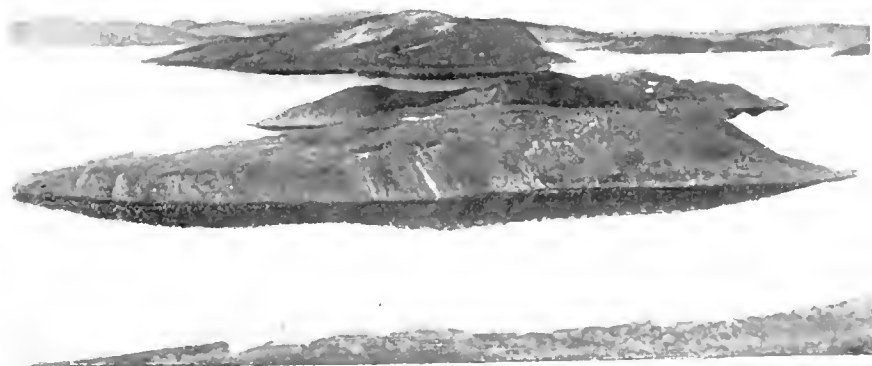
With occasional breaks I have lived with this people—the Arctic Highlanders—since 1903, and I have learned to love them as highly as I admire their remarkable ability to live the life of these harsh regions. But first it will be appropriate to give an account of my expedition and its plan.

The scientific equipment of the expedition was very simple—as is necessary for a long sledge journey. It consisted of one theodolite, three aneroid barometers, one cooking barometer, one maximal and two minimal thermometers, various spirit and mercury thermometers, one anemometer, and one hygrometer. Finally, Dr. Wulff brought everything necessary for pressing and preserving plants.

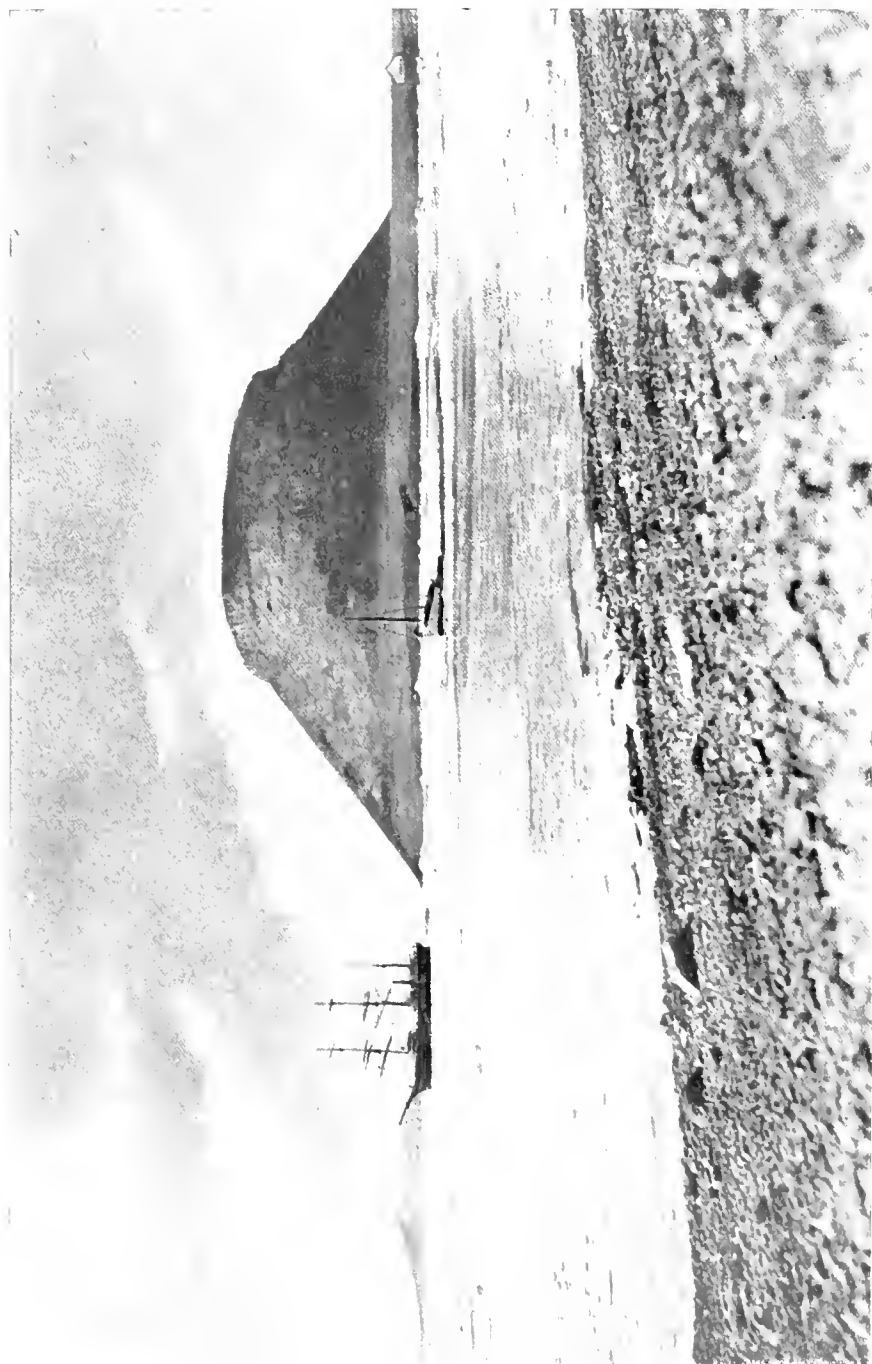
During the preparations for this journey, the seriousness



WITH THE SLEDGES AS FERRIES WE OF QAERSORSSUAQ CROSS  
OVER TO UPERNIVIK ISLAND



UPERNIVIK ISLAND



THE EXPEDITION SHIP *P. J. N. M. L. K.* AT THULE HARBOUR

## INTRODUCTION

of which none of us under-estimated, I made out on the 14th of February a written agreement which was signed by all. Only the following extract will be of interest, the remainder relating to routes and dispositions which will be self-evident later on :

“Although it is quite clear to me that it is very difficult previous to a start to specify an Expedition in sections, I have found it necessary to do this so that you, my comrades, may have some fixed point for the planning of the various parts of the work to be carried out.

“The Expedition will consist of—

Dr. Thorild Wulff, Botanist and Biologist.

Lauge Koch, Geologist and Cartographer.

Hendrik Olsen, previously a member of the *Danmark*  
Expedition.

Ajako.

Nasaitsordluarsuk, called Bosun.

Inukitsoq, called Harrigan.

And myself, as Chief and Ethnographer to the Expedition.

“In a previously presented plan all the tasks have already been worked out.

“As regards dispositions of journeys and routes I am absolute Chief. But I will, of course, within the domain of your respective professions, grant you all the freedom which circumstances may permit, and you will also, as often as your work may demand, be exempted from hunting.

“I wish beforehand to emphasize that during the Expedition there must be no difference in standing between the Eskimos and ourselves, the Eskimos being members of the Expedition with equal rights and duties to the scientists, and no man but the leader must have command over them.”

Several large expeditions richly equipped had already been to the regions we were to visit ; but none of them had succeeded in acquiring a thorough knowledge of the country—this despite the fact that due to its position it must contain the key to many problems decisive for the exploration and history of Greenland.

## INTRODUCTION

The explanation is this : The distances between the fields of labour are immense ; the conditions of the ground are bad ; and in the fjords there is bottomless snow. For these reasons those who have visited this district with what is called good equipment could not get ahead. Their heavy baggage did not permit them to get about, and they always preferred to follow the route along the Polar-ice proper, some distance from land, where the going was firm.

In other words, that which under all other circumstances was to be looked upon as a decided advantage, rich and good equipment, is here a weight which does not permit the explorer to move as quickly as the travelling season demands.

Those who were to attempt the completion of the charting of Greenland must therefore break entirely with the general practice of expeditions, and completely rely upon the hunt. Only this will make light sledges capable of forcing their way through the snow into the deep fjords.

Thus for us there was no alternative. All the tasks we had set ourselves were weighty and important, and as long as they remained undone the exploration of Greenland could not be considered accomplished.

This work fell within the International North Pole route, which hitherto only the big nations had dared to attempt.

The outlines of our work, however, were drawn by our predecessors, and we therefore knew beforehand that we could not expect any great geographical surprises ; it was only the crumbs from the table of the rich expeditions we were to gather, and the rôle we were to play would be comparable to that of the little Polar fox, which everywhere on the Arctic coast follows the footsteps of the big ice-bear, hoping that something good may be left for it.

But our task was not an ungrateful one, for we came to lift the stones which the others had let lie.

From our base at Thule the distance we had to cover to Sherard Osborne Fjord was 1,000 kilometres, whilst our predecessors, with their ships in winter harbour in Lady Franklin Bay and Cape Sheridan, had merely had to go 300 kilometres.

## INTRODUCTION

For the above-mentioned distance we would have sufficient provisions, but after that our hunt for food must begin.

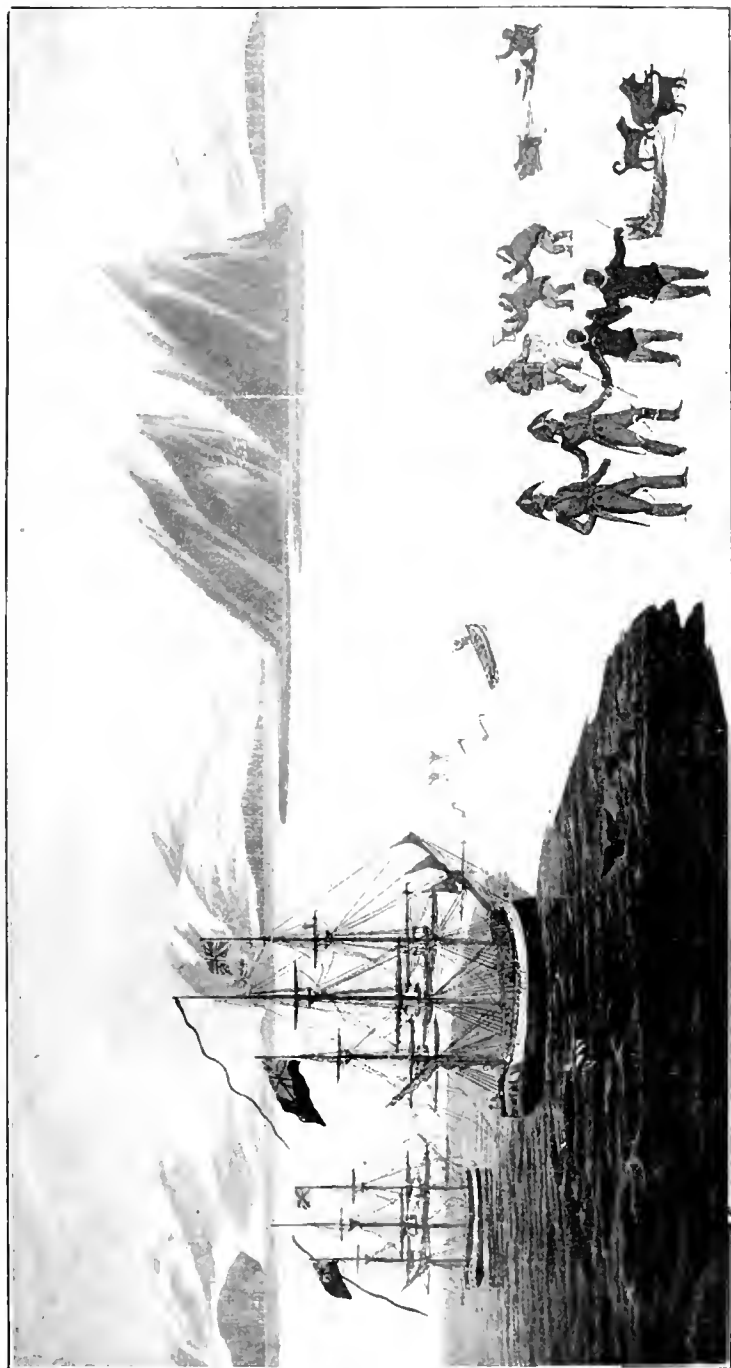
The experiences I had gained in 1912 during the first Thule Expedition gave me the right to assume that such a plan could be justified. The game I particularly reckoned on was musk-ox, to be found in the extensive tracts of land which the American maps show round the fjords and their heads. Further, there were seals. The Polar Eskimos who, during Peary's expeditions, had traversed the mouths of the fjords, had told me that the ice here was of such a quality that one could with certainty reckon on seals in June and July; breathing-holes were not infrequently observed. This information, added to my own experiences from Independence Fjord, where in a similar geographical position we found many seals, finally decided me.

The risk one runs on such hunting expeditions was quite clear to me; but the mind never occupies itself with the dangers when one is setting out. Every Polar traveller is aware of his risks when he leaves his home to set foot on unknown shores; and thus it was also with us. All my comrades greeted my plans with enthusiasm, and every man was inspired with one thought only: the certainty of success.

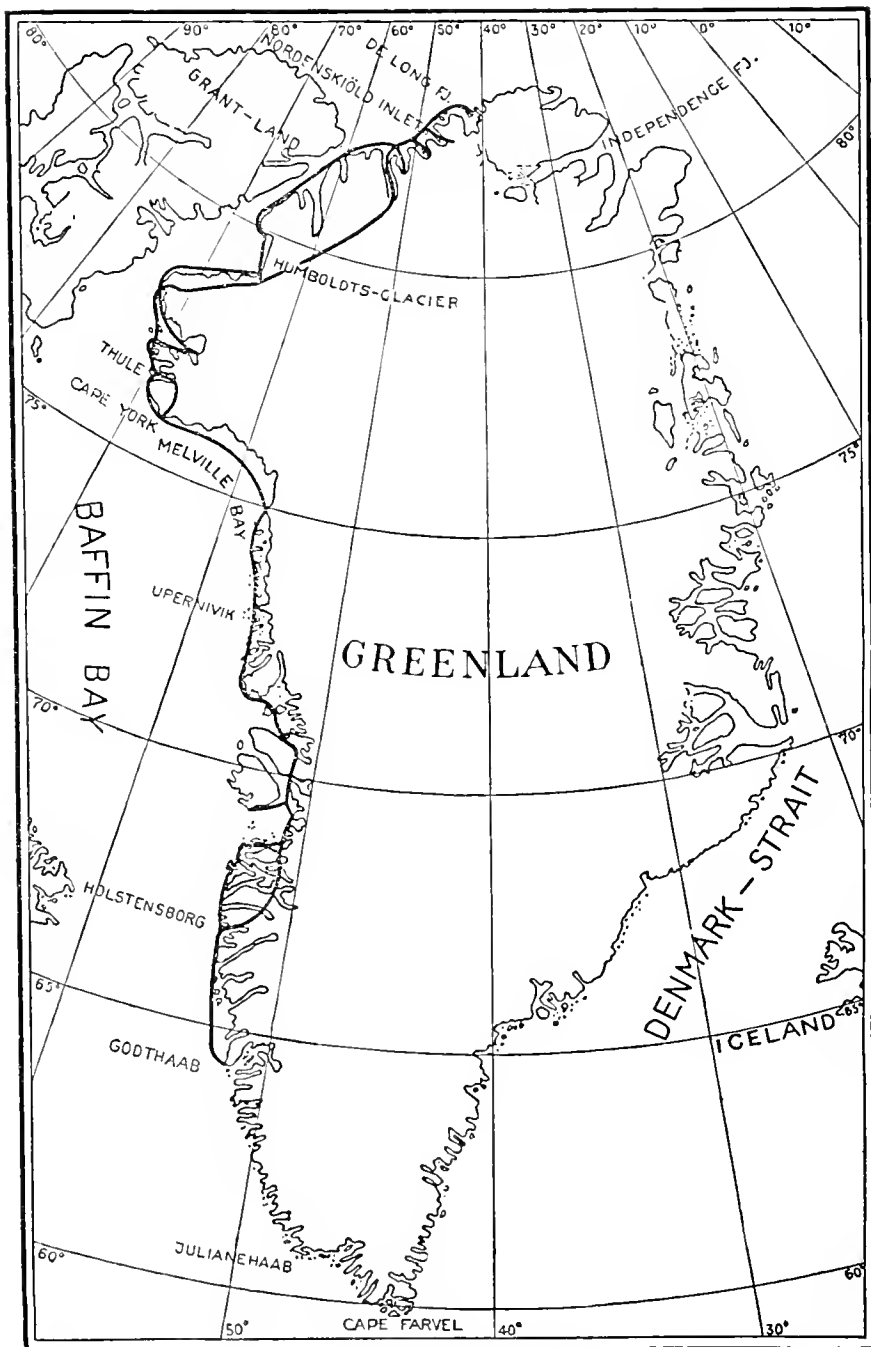
KNUD RASMUSSEN.







JOHN ROSS' FIRST MEETING WITH POLAR ESKIMOS



THE ROUTE

# CHAPTER I

## FROM THE LIFE AND HISTORY OF THE ESKIMOS

### THE FIRST DISCOVERY

**N**ORTH of everyone on our earth live the Polar Eskimos, whose simple and ingenious ways of hunting have made of their harsh and barren country one of those oases in the world where live genuinely happy people.

The first historical information we possess about their country dates from the year 1616, when Baffin discovered it. He, however, did not see any people, and it was only in 1818 that John Ross came into touch with Eskimo people of whom one had never heard before.

A memory still remains amongst the tribe of a woman named Maage (Gull), who prophesied that a big boat with tall poles would come into view from the ocean. And sure enough, one summer's day, just as the winter-ice broke and steep Cape York lay separated from the sea merely by a narrow strip of ice, the ship arrived and lay to by the edge of the ice. It was a marvel of ingenuity—a whole island of wood which moved along the sea on wings, and in its depths had many houses and rooms full of noisy people. Little boats hung along the rail, and these, filled with men, were lowered on the water, and as they surrounded the ship it looked as if the monster gave birth to living young.

This visit at first caused great anxiety and fear among the Eskimos, but later much joy. They did not believe that the white men were real human beings, but looked upon them as spirits of the air who had come down to the Inuits. The ship remained only for a short time, then turned towards the sea

## GREENLAND BY THE POLAR SEA

with the sun shining on its white wings and disappeared into the horizon.

Ross's visit to the simple and unprepared Eskimos certainly caused a stir, and I will therefore supplement the above phantastic narrative with something of that which is related in the Record of the Expedition.

It is told that the ship was lying alongside the edge of the ice when suddenly, to the surprise of everybody on board, on the ice were discovered beings in human likeness, dressed in pelts and with long, black hair flowing from their heads. With strange gestures they ran by the side of their dog-sledges. They were quite close to the ship when the big white sails were manœuvred ; and the result of this was a sudden about-turn and a scampering towards land in apparent fright.

A couple of days elapsed, during which every possible effort was made from the ship for getting into communication with the Eskimos, but without success. In his despair Ross at last had a huge standard erected by an ice-mountain between the coast and the ship ; from this he hung a flag, whereon the sun and moon were painted above a hand which held out a heather plant. Furthermore, a bag of gifts hung from the staff.

This clever trick was, unfortunately, not well received. If the Eskimos had been frightened before, they were now terror-stricken with this mystic staff and its fluttering flag, which they obviously considered to be some dangerous ruse of war. Out of curiosity they circled round it for awhile, but having scanned for a sufficiently long period the strange signs and the friendly outstretched hand, they disappeared hurriedly towards land.

When this attempt miscarried a white flag was hoisted on the mainmast of the ship, and at the same time Sachæus was sent out on the ice with a small white flag in his hand. But the Eskimos did not appear to have any understanding of the peaceful purport of these manœuvres, and the probability is that these sagacious experiments, which would merely have frightened and confounded the Eskimos still more, would have continued if Sachæus had not shown himself a master of the situation and asked Ross for permission to go to the kinsmen

## LIFE AND HISTORY OF THE ESKIMOS

of his tribe, alone and unarmed. By this means communication was at last established.

The great meeting between the Polar Eskimos and the South-Greenlander took place by a broad fissure in the ice, so that they stood right opposite each other, with a natural obstacle between them for safety's sake.

Sachæus explained, not without trouble, that a peaceful people had come to them, and the Eskimos were just on the point of consenting to follow him on board, when Ross, who of course was eager to meet these strange men, suddenly appeared on the ice in his officer's full dress uniform, as given in the illustration of this scene in the Record of the Expedition. This phantastie apparition of a man nearly frightened the Eskimos away again; but as the friendship with Sachæus had already begun, and as he explained to the marvelling natives that this peculiar dress was merely an outward sign of the fact that the big man was lord of all white peoples, they let themselves be calmed down and followed him on board.

It is highly praiseworthy of the Eskimos that they, in spite of all the inexplicable things they saw, allowed themselves to be coaxed on board and, in the Chief's cabin with Sachæus as interpreter, to give wise and dignified answers to the many questions that were put to them. Imagine the impression they must have received when, presumably to amuse them, a grunting Scotch pig was let loose on deck—these men who were only used to wild animals! Or when they were treated to a conjurer's performance, and allowed to look at themselves in a concave mirror!

It is interesting to note that Ross sums up his impressions of them by stating that they all speak lovingly of each other and their families, and on the whole seem to live happily, without knowledge of disease and war.

Already as a child I had in Greenland heard much about the Polar Eskimos, but it was mostly vague tales of savage cannibals, terrible hunters who lived with the North Wind himself, right at the "end of the world," where it was always night and where no summer melted the ice of the seas.

## GREENLAND BY THE POLAR SEA

“I must go to those people,” I decided as a twelve-year-old boy, and this decision, which later on I never succeeded in slinking away from, has, through repeatedly staying among them, led, so to say, to my reception into the tribe as one of their own, as a friend and fellow-hunter.

No hunter exists up there with whom I have not hunted, and there is hardly a child whose name I do not know; but then, the tribe consists of no more than about 250 individuals.

### ESKIMO ARCTIC EXPLORERS

These men, who have no fixed abode but live, as does their prey, ever on the move, are born Arctic explorers. From childhood they are hardened by an unmerciful cold, and their means of livelihood exposes them almost daily to severe physical strain and sudden dangers which sharpen their presence of mind and make their contempt of death a matter of course, the consequence being that they are unsurpassed as companions on Arctic Expeditions.

Kane, Hayes, Hall, Nares, Peary, the Crockerlands Expedition, and, last, but not least, I myself recognized this, and through these expeditions, comprising all those which during the last seventy-five years have explored and charted the northernmost parts of our earth, the Eskimos have in different ways done their share, which must not be undervalued.

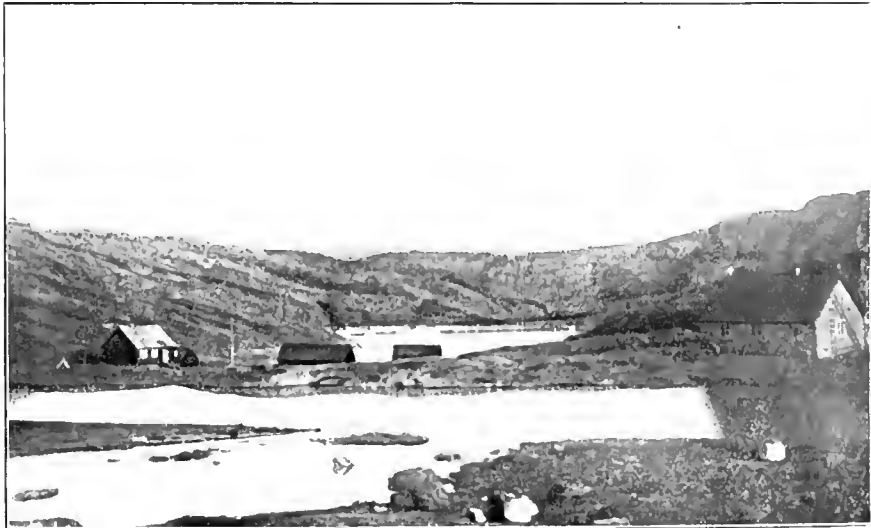
In this record, however, I will dwell especially on Peary, because his Arctic travels represent a chapter of the history of the Polar Eskimos.

The Eskimos owe not a little to Peary, but, on the other hand, without their help Peary's name might have been less famous than it is now; for they followed him on all his expeditions, left home and country and kind and put their whole existence at stake in realizing the phantastic travelling schemes of a foreign man.

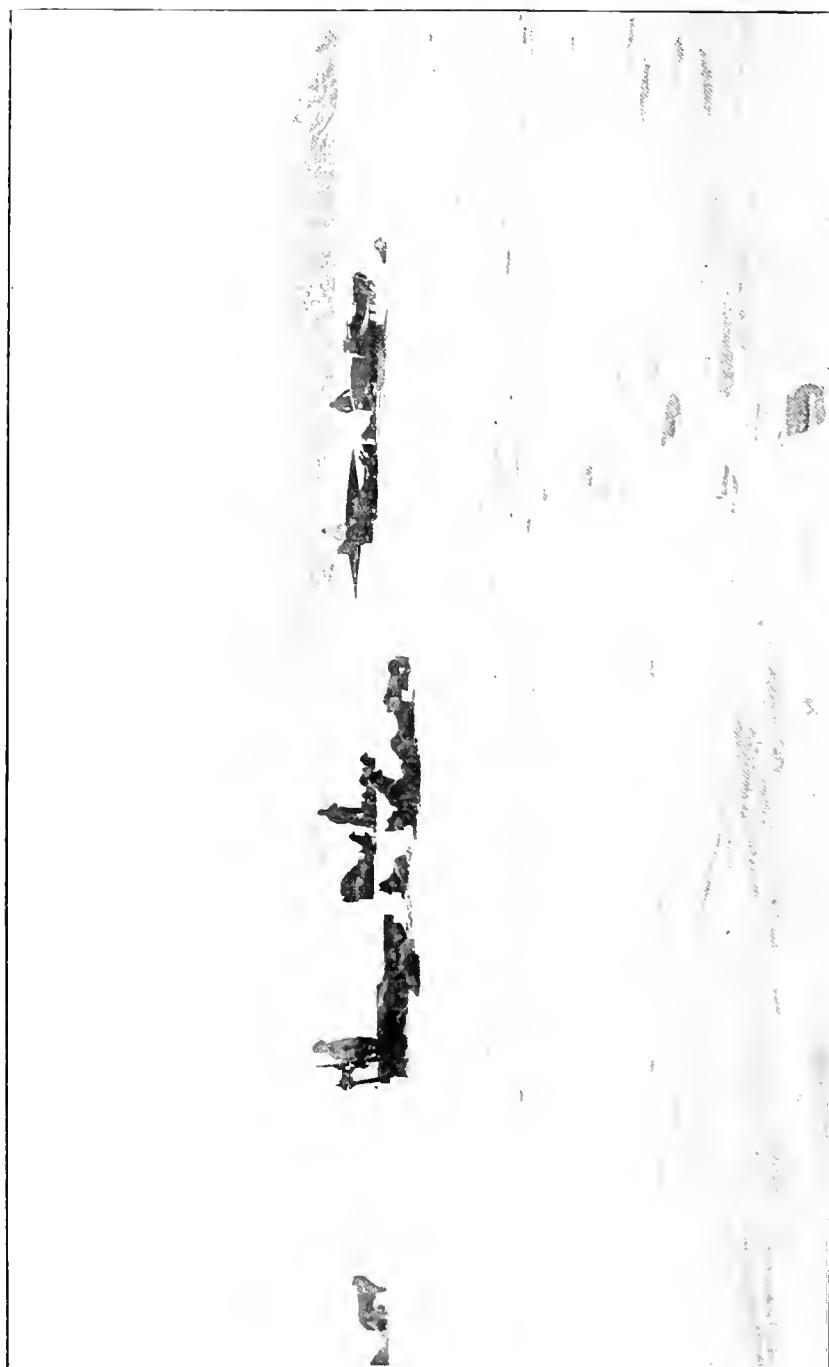
The way in which the Eskimos risk their lives, when once they have promised a man their assistance, for the solution of problems, wherein they themselves often see merely manifesta-



ESKIMOS AT IKERASAK, UMANAQ FIORD



TASIUSSAQ: THE MOST NORTHERN COLONY IN GREENLAND



THE DEVIL'S THUMB: WANDEL LAND IN THE BACKGROUND



## LIFE AND HISTORY OF THE ESKIMOS

tions of the many queer ideas of the strange white men, shows plainly their absolute contempt of death, and what an abundance of courage they possess.

They are not of the type which, like dogs, put their tails between their legs and run off when they meet dangers and the eternal hopelessness of pressure-ice.

The Eskimos are a roaming people, always longing for a change and a surprise—a people which likes moving about in search of fresh hunting-grounds, fresh possibilities, and “hidden things.”

They are born with the explorer's inclinations and thirst for knowledge; and they possess all those qualities which go to make an explorer in those latitudes.

When an Eskimo family moves on to new ground, in a surprisingly short time it knows the surroundings for miles around—paths, short-cuts, plains, mountains, all the natural features which a hunter must know so that he may track down his prey. They study the inland-ice and find places of easy ascent and sledge routes to other coasts and new chances. Soon the sea has no secrets regarding the movements and favourite haunts of its animals.

On the whole, the hunter likes to leave the old ways for the stimulating excitement which accompanies seeking and hunting under strange conditions. And he also knows how to value this quality and this inclination in others.

I shall never forget the happy sensation created among the hunters of the tribe when, in the spring of 1907, I drove up to them with Osarqaq and declared that I was on my way to Ellesmere Land. I had never seen a musk-ox, and now I had a longing to taste musk-ox meat. You see, according to their opinion there must always be a sensible reality behind one's actions. Oh, how well they understood me! They knew that it was “two suns” since I left my country and my family, and that I was still on the road with the same goal constantly in view. They respected that. I felt happy and touched when an old necromancer, Masaitsiaq, greeted me with a call to the effect that it was good that in my own country I had not for-

## GREENLAND BY THE POLAR SEA

gotten the hunting circle of my old comrades; and then he declared that all the young hunters of the tribe would vie with each other in showing me the country which I had never seen before and the animals which I had never slain before. And everything happened according to his promise. Two of the best men in the tribe immediately declared that they would come. No considerations here, and no preparations; an Eskimo is always equipped for a long voyage. On the following morning we set out on the 1,250 miles long sledge journey, and hunted together for several months and shared the strangest experiences. And we travelled together as comrades, as equals; they would take no payment for the long time they were with me, away from their families; no, this was merely an episode in their lives, and they would certainly not be my paid servants.

In the same way they took part in Peary's voyages, so long as he travelled on land. It is therefore interesting to note the position they took up when the Polar voyage itself commenced. During the first expeditions they agreed with pleasure to go north, because they thought that the voyage might result in meeting with new people, in the discovery of new hunting-grounds, or, at any rate, of land fit for habitation. But later on, when they were told that they risked their lives for a geographical point only, a point somewhere in the desert of pressure-ice where neither men, nor game, nor land existed, then the toil seemed to them so utterly aimless that their participation now required entirely fresh motives. Partly there was the respect for Peary—I have often been told that "he asked with so strong a will to gain his wish, that it was impossible to say no"; partly, also, there was the wish to possess guns, wood, and knives which were the payment for participation. But their personal interest to reach the goal, their private ambition to arrive there, no longer existed. For twenty years Peary had seen among the Polar Eskimos the base of his expedition, and during this short period these people had jumped from the stone age to the present time in their technical civilization.

When Peary came there for the first time the tribe was in

## LIFE AND HISTORY OF THE ESKIMOS

all essentials untouched. Guns were hardly known, the chief weapons on land being the bow, and on sea the harpoon. Long before Peary finished his last expedition all the hunters possessed the most modern of the breech-loading guns of our time. The old knives, which consisted of little splinters of meteoric stone, laboriously hafted in bits of reindeer skin or narwhal tusk, were replaced by the finest steel; and their sledges, which once were pieces of whalebone cunningly tied together to form runners, were now of the best ash or oak.

Long before Peary appeared a lively bartering with the Scotch whalers certainly took place; but a thing like a gun was a great rarity. Commercial intercourse with the whalers seems on the whole to have been very casual, and one may therefore say that it is Peary who has given the tribe its present effective equipment for winning a livelihood. Previous to the introduction of modern weapons it was obvious that the Polar Eskimos were subjected to the moods of the varying years. Their own simple and primitive weapons were beautiful and serviceable inventions; but the handling of them was an art, and when the condition of weather and ice, or even the movements of the animals, were unfavourable, it happened not rarely that they had to face bad winters through which they could only manage to exist with great difficulty. So far as their livelihood was concerned, Peary developed in them the white man's brain, which of course signified great progress in their material existence.

But the Eskimos did not forget to repay Peary what they thought they owed him; on his last two voyages to the North Pole about seventy to eighty Eskimos—men, women, and children—with several hundreds of dogs, accompanied him on the *Roosevelt* to the northern point of Grant Land. In other words, this included all the best young men in the tribe. And can anyone think of a more serious and extensive contribution to scientific exploration than this wholesale sacrifice of the supremest?

But Peary himself possessed qualities which made it possible for him to come to such an arrangement with his helpers. His

## GREENLAND BY THE POLAR SEA

great personal endurance, his repeatedly tested fearlessness, his capacity to manage year after year in such a way that he escaped well from it all—all this won the unstinted admiration of the Eskimos. They thought it good fun to risk something with a man like Peary—the great Peary of the strong will, the mighty lord of inexhaustible wealth, Piulerssuaq, who himself will surely some day be the hero of one of their tribal myths.

During my meetings with the Polar Eskimos I have often had occasion to hear them speak of him; and they have always been full of appreciation and proud to have been with him, even if one often feels that their respect for the man was greater than their love. I will recount a little incident which was told me by Odaq, who accompanied Peary on all his Polar travels.

It was in 1906, the year in which Peary reached  $87^{\circ} 14'$  and set a temporary record farthest north. Six Eskimos accompanied him, and these had for several days remonstrated with him that they would have to turn now if they should not die from starvation on the return journey; but Peary maintained obstinately that they must endure for a while longer. They had met with many mishaps. Open water had delayed them, and terrible blizzards in biting cold had hindered all progress; but as soon as there was a lull in the storm Peary got out of the snow-hut and made his way northward, always northward, into the ill-famed pressure-ice, fighting his way, clearing a path for the sledges and the worn-out dogs which followed, driven by the Eskimos. And Peary continued his slow walk against the storm with the sledges snailing behind him. Then came an evening after such a day when a longing for land, for wife and children and the delicious game far down southward seized the young hunters so strongly that they could see only death and destruction in all their desperate push northwards. They had not spoken much about it; but Odaq thought they looked so strangely at each other; and it struck him that none of them dared to mention land any more. He could bear it no longer, and went into the snow-hut where Peary lay sleeping. "I have come to speak to you for my comrades' sake," he said, "for further progress now would mean death for all of



THE WHALERS' FLEET, 1818

*Ross*



THE SAILING SHIPS BREAKING THROUGH THE ICE AT THE TIME OF JOHN ROSS

*Ross*



RETURNING FROM WALRUS HUNTING, THULE

## LIFE AND HISTORY OF THE ESKIMOS

us, and I know that you will not turn. Send my comrades back ; with the aid of the compass they will be able to find land, and I will go on with you so that you may not die alone."

And Odaq continued :

"Then Peary looked at me with such strange sadness, and it seemed to me that for the first time in all the days I had travelled with him his stern eyes looked kind ; and he gave me a slap on the shoulder to signify that he understood me, and answered : ' I am glad, Odaq, for what you have said ; but it is not necessary. To-morrow we will turn. You see, Odaq, neither have I any desire to die now, for another time I shall reach the goal which I must now give up.' "

This little incident seems to me to characterize equally well Peary and the young bear-hunter, who was not afraid to sacrifice his life for his master's kingly aspirations.

Otherwise the tales one hears are not entirely of a serious nature, and nothing has been more entertaining to me during the many days of bad weather, both in winter and summer, than sitting listening to the Eskimos' tales of privation and danger, tales which now, when gone through in memory, always end in sheer fun.

"Oh, well, that was when we were forced to eat our dogs raw, far from land, right out on the ice, while our enormous stores of meat were rotting at home in our camps." Little finishing remarks like these contain all their wanton self-mockery ; for to an Eskimo it will always seem monstrously funny that one can let oneself be coaxed into leaving land, and go out into the cold pressure-ice of the Polar Sea, just for the sake of hewing one's ways through it, with death hovering above one in the enormous, white, lifeless desert.

It is very significant of the open-air spirit of the Eskimos, and of the mind of the hunter and his obstinate ambition, that a man who could look upon his suffering through a toilsome voyage as something sensational, would immediately be made a laughing-stock among his countrymen. When one has decided on the hazards of a journey, one must take everything that occurs like a man—that is, with a broad grin. I have even

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heard old Eskimos tell of situations wherein they were in danger of death, in such a manner that the audience knotted themselves with laughter.

It may be that in this matter we highly civilized, cultured beings meet a quality in the so-called primitive natives—whom otherwise we honour with all our gracious superiority—a mysterious and humorous contempt of death which almost makes the ideas danger and death merge into one. For instance, consider the way in which some families, which during Peary's last expedition but one had remained behind near the big lakes at the back of Fort Conger, managed to make their way home all the distance down to the Cape York district. The men, some with a team of two, some of three, dogs, without provision for the journey, brought their wives and children the hundred miles' long journey southward, first across the Kennedy channel to the land, continually hunting for food like beasts of prey as they travelled. Some of the women had newborn babes in the bags on their back, others were in an advanced stage of pregnancy, whilst others, again, gave birth to their children as they travelled the toilsome, dangerous way, advancing foot by foot, pushing and pulling the sledges along down to their homes. And they arrived quite unmoved by the fight for existence, bubbling with merriment as never before, everyone from the oldest down to the youngest babe strutting with health.

Anyone looking at the map will understand the magnificence of this deed. The hunters' sagacity and the constitution of the Eskimo race achieved in this undertaking one of their most glorious triumphs; it is a leaf out of the history of Polar travelling which ought to be known by everyone, even by those to whom the North Pole is only a name.

It was in the year 1907. At that time I came from Ellesmere Land with two Eskimos, when outside Cape Inglefield we ran across sledge tracks which we did not for a moment doubt were due to the rearguard of Peary's great army of offence against the North Pole. Their probable fate had been the subject of discussion among the tribe throughout the winter. We were confronted by two tracks—one from a team of four dogs,



## LIFE AND HISTORY OF THE ESKIMOS

the other from a team of two. And it was obvious that the dogs must have been quite exhausted, for none of the travellers had been able to ride on the sledges. We saw the tracks of two men and two women ; and, between these, the tiny imprints of children's feet—children of at most five or six years of age. The tracks came from Humboldt's Glacier and pointed downward to Etah.

"Look, the little ones have walked that long, long way," said one of the Eskimos when he saw the children's tracks.

"Our women bear strong children !" cried the other one, examining the tracks as he ran.

We decided to turn at once and make for the camp at Anoritoq, as there was a possibility of others being on the way and in the vicinity. It was impossible to tell what these people might have suffered and in what condition they might be. In great excitement we reached our destination. No one was there. Then we drove back again and on to Etah, and there at last we found them : two families, Odaq with his wife, a little son of five years, and a baby-in-arms ; Agpalinguaq with his wife, a small daughter, and an almost new-born babe.

These Arctic travellers all looked like people who are returning from a little pleasure trip, well fed and smilingly healthy. The women and the little ones had just finished a walking tour of a hundred miles, the mothers with their smallest children on their backs, and all of them had for more than a month been a prey to the cold and the sweeping blizzards out on the ice. And if a blast is to be found anywhere in Greenland you will find it by Humboldt's Glacier—a blast with a bite in it. Another eight families were still on the way ; two sledges had dropped a little behind the others, delayed because the women that accompanied them gave birth to their children whilst travelling. They told us in this manner, quietly and as a matter of fact, without any attempt to be sensational.

But never in my life as an Arctic traveller have I felt smaller than when faced by these child-bearing women, who with babes at their breasts undertook journeys which might have cost many a white man his life.

# GREENLAND BY THE POLAR SEA

## THE FIGHT FOR FOOD

The harsh conditions of nature which force the Eskimos into an unending fight for existence, quickly teach him to take hold of life with a practical grip—i.e., in order to live I must first of all have food! And as he finds himself in the happy position that his form of livelihood—hunting—is also his supreme passion, one is justified in saying that he leads a happy life, content with the portion that fate has allotted to him. He is born with the qualities necessary for the winning of his livelihood, and the skill in handling the tools, which later on makes a master of him, he acquires through play while he grows up. On the day when he can measure his strength with that of the men, he takes a wife and enters the ranks of the hunters.

The sledge and the kayak now become the main factors on which his subsistence depends. But whereas the sledge is used for all kinds of hunting during the ten months of the year, the severity of the climate makes the use of the kayak possible only during a very short period; for the summer only lasts from the end of July until the first days of September.

As a rower of the kayak the Polar Eskimo cannot compete with his kinsman from South Greenland. His kayak is large and clumsy, and cannot stand a rough sea, for in its equipment it lacks both the half-jacket and the whole-jacket which covers the manhole; it is therefore unable to set out in all kinds of weather without danger of foundering.

The ocean is, however, generally full of ice-floes which calm the waves, and there is not very often a chance of rowing in a high sea.

The chief weapon of the kayak is the harpoon with its line and bladder. What the craft lacks in seaworthiness is compensated for by the astounding skill with which the Polar Eskimo gets near to his prey, so that with ease and without the aid of a throwing-stick he harpoons his prey at quite close range.

The animals hunted from a kayak are walrus, narwhal, white-whale, bearded-seal (*Phoca barbata*), and ordinary fjord-seal.



TOBIAS GABRIELSEN

*Achto Fries*



SIMON, THE OLD BEAR-HUNTER

*Harold Murie*



AN OLD WANDERER FROM MELVILLE BAY

*Elton Dufferin*



*S. A. Moeller*

ESKIMO BOY FROM UPERNIVIK



THULE

## LIFE AND HISTORY OF THE ESKIMOS

Besides hunting on the sea, there is also extensive bird-hunting. The whole coast, from Cape Melville up to Etah, is with very rare intervals the breeding-ground of millions of Sea-kings, which herd together in such great numbers that they are easily caught in ketches from hiding-places between the stones.

The Sea-kings are small birds of the auk family, about the size of a starling; they generally live on mountains which go right out into the sea, and here they gather like an enormous floating raft, diving and tumbling after having made those little trips which provide them with food. Their breeding-places lie on the even slope of the mountains, where they make all stone-heaps alive. They sit in close flocks, covering the stones, and their tuneful chirping and merry whistling merge into one mighty tone which makes the whole landscape resound. And when all these flocks do occasionally lift and shoot up into the air, they sweep over land and sea like a tempest.

This little bird plays an important part in the household economy of the Eskimos, as everybody with a little energy can collect here a winter-store which will last all through the Polar night; and the soft little skins can be made into underclothing which, worn next to the skin, is warm and comfortable.

Besides the Sea-kings mountains there are three big auk-mountains—two by Parker Snow Bay and one by Saunders Island. Great flocks of auks, gulls, black guillemots, and fulmars hover round the shelves of the steep fells, and the meaty auk particularly is caught here by the hundreds in ketches and put away for the dark period (October 1 to February 1).

Finally, in certain districts, the eider-duck gives its welcome contribution to the household stores of summer and autumn.

The great abundance of Sea-kings mentioned above is also put to good account in other ways, as these birds attract many blue foxes which find their food on the breeding-ground, not merely in summer but during a great part of the winter as well; for the wise fox thinks not only of to-day: he also collects his store for the winter, especially during the egg-laying season and before the young are able to fly. During visits to the mountains it is not unusual to see a fox coming along very carefully

## GREENLAND BY THE POLAR SEA

with eggs in his mouth, and by following him one may discover quite considerable depots covered with moss and turf.

These foxes were previously caught in native traps, of which several different types existed; but now they are caught in American steel traps.

After this survey of the chances which the summer offers, I will give a corresponding summary of the winter's hunting.

Already by the end of September the ice lies on fjord and bay, and in October hunting on the ice begins. If the ice lies shiny and uncovered by snow for a period, a rich hunt of seals takes place. The hunter ties a piece of bear-skin under his feet and moves along the ice quite noiselessly, occasionally stopping to listen, for in his approach to the seals he depends solely upon his sense of sound. When the seals come up to breathe through the holes in the ice, they blow so loudly that they can be heard a considerable distance. The hunter now moves towards the sound, taking great care to move only when the seal breathes. When it ceases he also stops, as otherwise it would hear him. The seal as a rule remains by its breathing-hole for some time in order to store as much air as possible in its lungs before diving into the deeps again, and thus, by taking advantage of the seal's respiration, the hunter is enabled to get right up to the hole. He then harpoons it with the greatest skill through an orifice which is so small that it barely allows the harpoon to pass through. It is obvious that the aim must be a sure one. But the senses of the Eskimo are so keen that even at night he is able to spot his prey and kill it by moonlight.

This way of catching the fjord-seal and the bearded-seal yields not only a rich catch in a short time, but is also considered the most amusing of all branches of hunting-sport.

In several places walrus is caught on the new ice, and in this case it does not matter whether snow has fallen, as these big animals are not so sensitive as the seals.

In November the ice between Saunders and Westenholme islands is so thin as to allow the walrus to shove its skull through it when, during its meal of mussels, it wants to breathe. The Eskimos then sneak towards it while it breathes, and no sooner



ESLIMO GRAVES, SAUNDERS ISLAND





## LIFE AND HISTORY OF THE ESKIMOS

is it harpooned than the line with lightning speed is fixed in the ice ; the walrus is now tethered, and being therefore forced to return to the same breathing-hole every time it draws a breath, it is killed with lances.

In the autumn the walrus is fat and meaty, and the yield of the catch therefore goes much farther than that of the little seals. And this has its importance in a household where practically every means of finding a livelihood must be abandoned for the better part of the winter, and where must be fed not only the people, but also the sledge-dogs, of which a single man may possess over a score.

The type of hunting which the Eskimo values above all others, however, is the bear-hunt. I put once the following question to an elderly man :

“ Tell me what you consider the greatest happiness of your life.”

And he replied :

“ To run across fresh bear-tracks and be ahead of all other sledges.”

Scarcely has the sun and the light returned when all men, who possess meat enough to leave their wives and children alone at home, go out bear-hunting, often for months, defying cold and all sorts of weather, welcoming snowdrifts as their camps. The southern borders of these bear-hunts stretch right down to Cape Holm, while northward Humboldt's Glacier is often passed. Finally, many of them cross over Smith Sound from Anoritoq to Pim Island, and follow the coast of Ellesmere Land almost as far down as Jones Sound. One has seen on these bear-hunts old men with white hair, men who during their life of hunting good and bad have experienced everything nature could offer them, hunters who have long ago forgotten the tally of their deeds ; and young men, half-grown lads—all of them go crazy with the hunting-fever as soon as there is a chance of challenging the white king of the Polar waste. And for one single harpoon duel all the resultless and evil toil which preceded this supreme moment is forgotten.

The track of a bear, and far in the distance a small yellow

## GREENLAND BY THE POLAR SEA

blot on the whiteness; and then the good bear-dogs which fly across the ice like a tempest, out-distancing all the rest! This is one of the culminating points in life which every young Polar Eskimo dreams about.

From May until the middle of July is the period during which the seals crawl up on the ice to sun themselves and laze about in spring drowsiness. Then the Eskimos creep up close and harpoon them before they can pull themselves sufficiently together to wake up and slide down under the ice through the breathing-holes. If, however, it so happens that the sleep is light and the animal wakes up, every hunter knows to such perfection the art of imitating the sounds and movements of the seal that the animal imagines it sees a comrade lying there, happy in the warmth, and brushing its coat on the snow. The Eskimo continues his tricky advance, and the alarmed seal soon lies down again, to continue the sleep from which it will never awake.

Previously only harpoon and line were employed in this work, but now the rifle, and the stalking-sail which has been imported from the South of Greenland, are used. This stalking-sail consists of a cloth of white skirting, large enough to cover a creeping man; it is fixed to a small sledge which the man, lying on his stomach, can push in front of him together with the gun until he is within shooting distance.

The Utut-hunting, as they call the method described above, gives the foundation for the very important winter-stores, which during the dark period free them from cares.

Of the land game, the reindeer was of great importance before the time of the Peary Expeditions, not only because of their meat, but also for the sake of their skins. These were used both for coats and for bedding. Unfortunately the surrounding land is not extensive, and the Eskimos had not for long been possessors of American magazine-guns when the whole stock was exterminated. At present one very rarely sees a reindeer.

Hares, on the contrary, are plentiful in some districts. The flesh is considered a tit-bit, and the skins are indispensable



ESKIMOS DRINKING COFFEE IN OLD STYLE



QINGMINEGARFIK IN INGLEFIELD GULF FROM WHERE, ACCORDING TO THE ESKIMOS,  
ALL WHITE MEN ORIGINATE



## LIFE AND HISTORY OF THE ESKIMOS

as stocking-skins. They are easily hunted both with gun and snare.

An animal which does not exist inside the Polar Eskimo's own territory, but which, nevertheless, within the latter years has played an important part, is the musk-ox. Everywhere along the stretches from Humboldt's Glacier down to the quite narrow strips of land among the mountains of Cape York, one finds their bones, but no person now living can give any information about the time when the last musk-ox here was slain.

As long as there were sufficient reindeer the skin of the musk-ox was rejected for bedding, being awkward to use and difficult to keep clean because of the long hairs; even now bear-skins are preferred, and are looked upon as the finest, most durable, and most convenient. Unfortunately, everybody is not a great bear-hunter, so that the musk-ox is on the point of being considered entirely acceptable.

Every year in April and May great hunting expeditions for musk-ox are arranged, preferably through Ellesmere Land to Heiberg Land. These expeditions often last for a couple of months, as the Eskimos camp on the killing-grounds in order to dry the skins. As there is an average of a score of hunters each season, it would scarcely be too high to estimate that about three hundred musk-oxen yearly must bite the dust. It is deplorable that the Eskimo's lack of sense for limitation threatens this big game with extinction; but the danger is not an immediate one, as certain flocks in these regions number upwards of two hundred animals, which make a big mountain look quite alive—an impressive sight never to be forgotten by one who has seen it.

## WOMEN AND CLOTHES

The Polar Eskimo begins and ends his life travelling. Already as a new-born babe he follows in the bag on his mother's back; nobody considers the time of the year, and oft-times the whimpering child is transported across wild glaciers in darkness and cold, ending the toilsome day in a

## GREENLAND BY THE POLAR SEA

cold, newly erected hut of snow. No wonder that he, or she, frequently becomes crooked with rheumatism at an early age and has to give up. This rheumatism is a legacy of all those days spent in snowdrifts during sudden blizzards, and serves as a reminder of the many times when he was taken unawares by storms during the hunting of reindeer and birds, and for weeks had to put up with a damp and clammy cave in the mountain.

Against this background, it is easy to understand that nobody has paid so much attention as have these people to the convenience of clothing. The climate of their country demands it, and it is an absolute condition that the hunter must be clothed fittingly. So the task of the woman is to make and mend the man's clothes, no less than it is to get the daily food. It is not without reason that the Polar Eskimo says that a man, as hunter, is what his wife makes of him. But the wife also knows how highly her part is valued by the man, and no praise is more flattering to her than admiration of her work. As luck will have it, she also has at her disposal the animals which yield the warmest fur from which to make her clothes. Next to the skin is worn a light and soft shirt, made out of birds' skins, the feathers turned inwards; on top of this a coat of sealskin, with the hairs turned out, is worn during spring, summer, and autumn; in winter-time this so-called Netseq is exchanged for a coat of blue fox, also with the hairs turned out; and certainly this is the lightest and warmest costume in existence. For trousers the men use bear-skins—a kind of knickerbockers that reach just below the knees. Out of beautiful white frost-bleached sealskins without hairs they make boots and line them with hare-skin. For long sledge journeys they also use long-haired boots made from the skin of the forelegs of the bear, or from the leg-skins of the reindeer. A woman's costume is not much different from a man's. The chief difference consists in the trousers being shorter than the man's and made out of foxes' skin; the boots are almost as long as the legs. The difference in coats is only marked by a variation in pattern, or by the way in which skins of different hues are put together.



ARNANGUAQ



ESKIMO RETURNING TO HARBOUR



SKETCHES BY QUJAKITSUNGUAQ

Walrus

Hare

Gull

Sea King

Flocks of Musk-Ox in the mountains

Reindeer

Bear

Swimming Bear

Raven

Musk-Ox



## LIFE AND HISTORY OF THE ESKIMOS

The fox furs are seldom brought into the house, but are kept outside in a small stone cave. Thus the somewhat delicate skins are not exposed to the frequent changes in temperature, which would rapidly ruin them. The house-dress worn in the very warm houses and tents is reduced to boots and trousers, the upper part of the body being naked—a negligée costume free of all coquetry, as up in the bunk often twenty degrees (Cent.) of warmth is registered, whilst on the floor you will find Zero or a few degrees of frost.

### HOUSES AND TENTS

In winter the habitations consist of little houses, built of large flat stones and with domed roofs which, with great architectural cunning, are built so that the stones carry themselves without support. The houses as a rule are only planned for one family. A low and very long passage serves as entrance, and through this one creeps into the living-room itself, entering from below through a narrow opening. In spite of the primitive arrangement and the cramped space, the impression given by these huts is often one of extraordinary cosiness, the walls being covered with light-coloured sealskins. The stone sleeping-bench, which occupies the better part of the room, is always covered with a thick layer of fragrant hay, and on top of this a rug of bear-skin or reindeer. Light and warmth are supplied by two or three train-oil lamps, made out of the same kind of stone as that which forms the walls; with their long wicks of moss these lamps generate a heat fitting to the Adam's costume which is the house-dress. The bench is seldom larger than to allow four people to sit next to each other, and the roof is so low that one can rarely stand erect. Right opposite to the entrance there is a window of gut skins stitched together. In the middle of this window there is always a small, round peep-hole. In the roof there is another hole, called the "nose" of the house, through which the bad air is carried away.

Beside the permanent stone winter-house, there is also a

## GREENLAND BY THE POLAR SEA

snow-house. The big blocks of snow which constitute the material of this house are cut out of the hard drifts of snow with long knives. These snow-houses are built with great ingenuity. The inside arrangement corresponds to that of the stone houses, skins covering walls and roof. No block-house in the world can compete with a well-built snow-house as regards warmth.

The short summer is the time of the bracing life in the tents; here also we meet with the roomy stone bench which, with all its paraphernalia, makes a delicious resting-place for the night. The skin tents consist of two layers of sealskins on top of each other; they can therefore with ease resist the rain under all conditions. Here also are burning blubber lamps which give to the tent such a temperature that one can live in it until, by the end of September, winter supersedes autumn.

### PLACES OF HABITATION WHICH ARE CHRISTENED BY THE WIND

The permanent camps reach from Cape Seddon in Melville Bay right up to Humboldt's Glacier. As the tribe consists of so few individuals, there is plenty of elbow room for the hunters, and at the same time the game is given an excellent chance of renewal and breeding. For this little handful of hunters is distributed over a stretch of 800 kilometres.

The Polar Eskimos themselves classify their places of habitation according to the wind in the following districts:

Nigerdlit: Those who live nearest to the south-west wind.

Akunarmiut: Those who live between the winds.

Orqordlit: Those who live in the lee of the south-west wind.

Avangnardlit: Those who live next to the north wind.

By Nigeq they do not mean merely the south-west wind itself. Here is included also the mild *Föhn*-wind, which comes



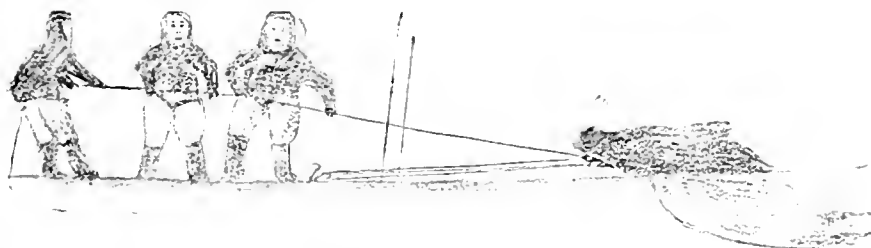
HARPOONING A WALRUS FROM A KAYAK



ESKIMOS GOING OUT ON THE NEW ICE TO HUNT WALRUS

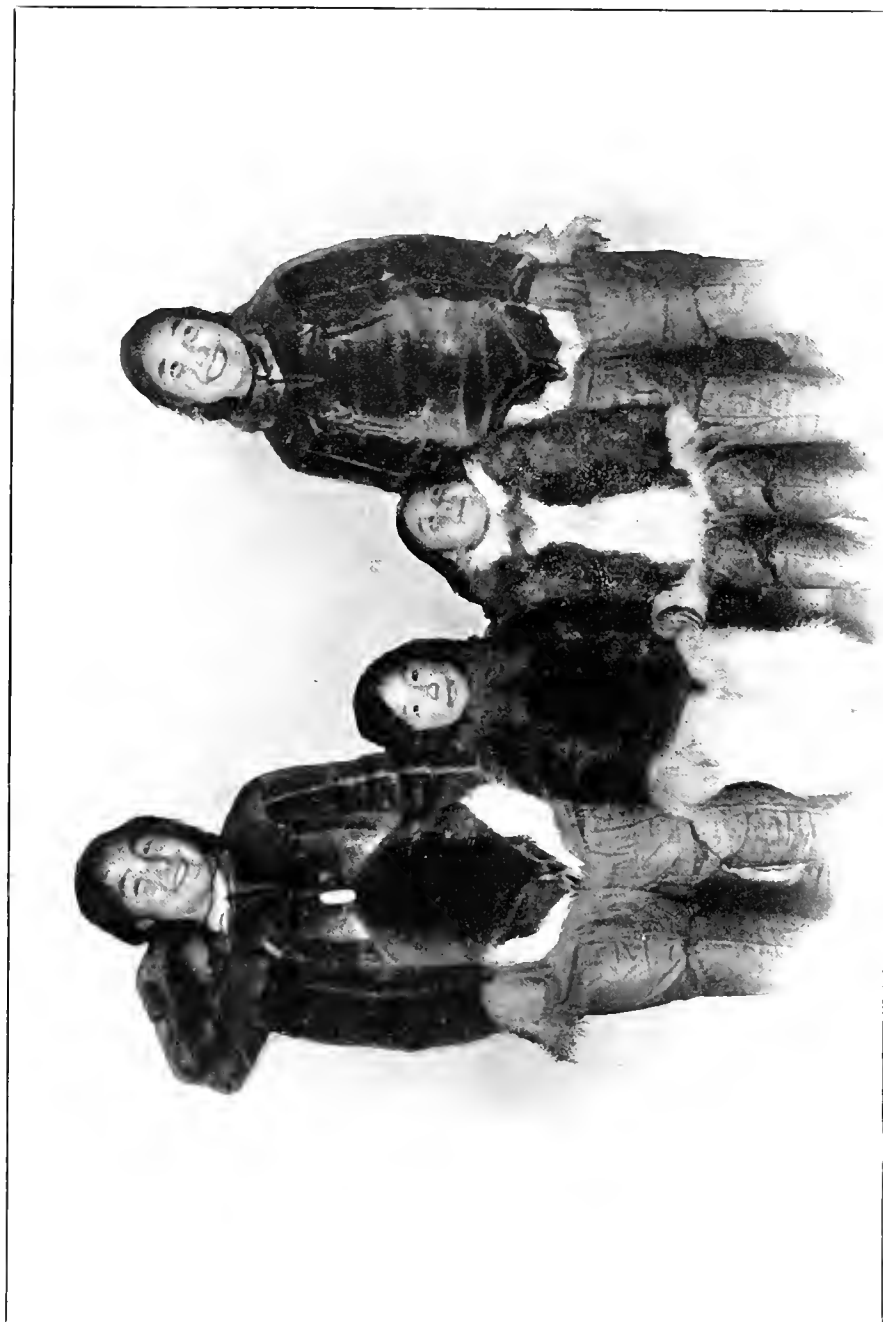


HARPOONING WALRUS



WALRUS BEING PULLED UP BY THE AID OF PRIMITIVE TACKLE INVENTED BY THE ESKIMOS

*Sketches by Asiatic*



TWO YOUNG ESKIMO MOTHERS WITH THEIR CHILDREN

## LIFE AND HISTORY OF THE ESKIMOS

from the inland-ice with great suddenness and in an instant produces a positive temperature in the middle of the coldest winter. I will give an example :

Once, at the end of January, after a journey across Melville Bay, we drove in a party of twenty sledges along the land south of the Petowik Glacier on our way to Thule. The weather was good, and as the day's journey consequently had been a very long one, I felt somewhat tired and stretched myself on the sledge to take a little nap, whilst a boy who accompanied me drove the dogs. Just before my eyes closed I noticed a swirl above some cloughs near the inland-ice, but as there were no other signs of bad weather on the sky, none of us paid any particular attention to it.

My doze could not have lasted more than five minutes when I was awakened in the most brutal manner, being, as by a mighty grip, lifted up from the sledge and flung out on the ice. I received so violent a blow in the back that I was unable to get up for a moment, but when at last I succeeded in rising to my knees, I saw that all the many sledges which a moment ago had driven in a long string one behind the other, were swept together into one huge pile, like wooden shavings blown together by a breath of wind. With such suddenness and force the *Föhn*-wind had sent out its first squalls as forerunners of the storm which was coming. As it was quite impossible to stand upright, not to mention driving, we let ourselves be blown up on land with sledges and dogs, until we found some little shelter in a clough by a broad tongue of ice where the sledges could be anchored and the dogs tethered. Hardly was this done when the *Föhn*, with the roar of a hurricane, swept down upon us from the mountains and the inland-ice and made us suspect that the world itself was going under. It pressed its enormous weight down on the thick winter ice with such violence that the waves immediately burst up through the belt of the tidal waters. Half an hour later we saw through the darkness huge fissures in the ice, frothing white, and a few hours after the outbreak there was open sea where shortly before we had driven our sledges.

Altogether, one can understand the important rôle played

## GREENLAND BY THE POLAR SEA

by the wind in the lives of a hunting people whose subsistence depends entirely upon the sea.

The south-west wind decides the fate of the summer ; for if it blows too frequently Melville Bay and all the north-west coast is filled with pack-ice, which gives rise to raw weather and poor hunting. The only beneficent act performed by this wind is in the autumn, when it not only makes the ice settle early, but also carries a lot of ice-bears on flakes from Baffin Bay in towards the land.

All camps from Cape York southward range under Nigerdlit. The mainstay in these places is the seal, but first of all it is the many bears in Melville Bay which lure people up here.

The Cape York district has no real summer ; if now and then one crosses a glacier, winter hunting is possible all through the twelve months of the year. The scarcity of open water is responsible for poor hunting with kayaks and small winter-stores. The little Sea-kings are therefore a boon ; and they are found in millions in the mountains hereabout. For the winter-store they are preserved in a peculiar way. During May and June they are pickled whole, feathers and all, in big, newly-flayed sealskins stripped whole from the seal, so that only a small opening remains near head and back flappers, and this can easily be drawn together. As soon as this skin is filled it is covered securely with stones so that the rays of the sun cannot reach it, as this would give the meat a bitter taste. The birds now slightly decay, and at the same time the blubber from the skin permeates the flesh. This dish, which is looked upon as an extraordinarily delicate morsel, is offered to all guests during winter as the best thing one can give to friends.

Even if there is some lack of meat here, there are other things which, according to the opinion of the inhabitants of the south-west, make this district preferable.

There is an abundance of blue fox, so that the people here, besides being able to procure pelts to excess, also have many "sale-foxes" for disposal. Then there are the bear-skins, which give warm trousers and lovely rugs for the bunks, and bring in



GRAZING REINDEER



MUSK COWS WITH CALF



SWIMMING REINDEER PURSUED BY KAYAKS

*Drawn by Qarqutsianguaq*  
SEAL BEING HARPOONED AS IT COMES UP TO ITS BREATHING-HOLE



KILLED MUSK-OXEN BEING SKINNED: TO THE LEFT SLEDGE WITH DOGS



POLAR ESKIMOS DRESSED IN FOX FUR COATS



## LIFE AND HISTORY OF THE ESKIMOS

some cash as well. The inhabitants glory in exciting hunting experiences all the year round, and to meet a Cape Yorker is nearly always to be counted as an adventure.

All this imparts to them a certain nimbus ; but people from the sheltered side, who do not wish to seem inferior, will as a rule only admit that the Cape Yorkers may have the best clothes and the warmest bunk-rugs in all the district, "but," they add, "their houses are cold, for they have only seal-blubber to put into their lamps ; their dogs are lean and have ugly pelts because they are not fed on the meat of the walrus and narwhal ; and finally, in spite of all their cleverness, they are very fond of coming up to our well-filled meat stores to feed up their dogs, and themselves eat their fill in Mataq when, during the dark period, short commons is the order of the day."

Akunarmiut comprises the district round the present Thule. The chief means of livelihood here is the hunting of walrus, but seals and narwhals as well are killed in abundance.

It is of the utmost importance for subsistence here that the ice between Saunders Island and Dalrymple Rock settles evenly in the end of October and the beginning of November ; for then the walrus remain for a long period by their breathing-holes, which they break with their skulls.

This hunting season is a beautiful and exciting time, with races from morning till night. The point is to be the first one with the sledge on the hunting-grounds, wherefore one may see, early in the morning, or rather in the night, one sledge after another shoot across the ice like a swift bird flying out into darkness. It would not do to make up large parties, as this gives small shares of the catch, so one spreads out as much as possible ; and in the white darkness are discerned the contours of many fur-clad hunters distributed along the ice, with harpoon and line under their arms ready to take their chances. When a walrus has been harpooned, one sees the many bear-trouserred, faun-like figures rushing up, joyful in the capture, to take their share in the division of the catch. The heavy animal is pulled up on the ice without difficulty by the aid of primitive tackle fixed in the ice.

## GREENLAND BY THE POLAR SEA

Unfortunately this hunting of walrus often fails, and this district is therefore not reckoned as a good food-provider.

Orqordlit, or the lee-side inhabitants, encompass the whole district around the great Inglefield Gulf. Many camps are to be found here, where the hunting conditions everywhere are so brilliant that meat is always to be had in superfluity. In the mouth of the fjord there is an excellent run of walrus all through the summer, on the new ice in the autumn, and during the light time in March. When frozen sea, after being opened by a storm, freezes again, hunting like that described above takes place here.

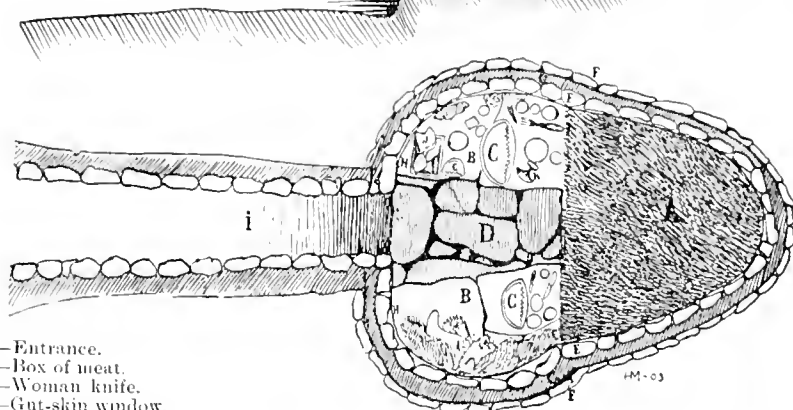
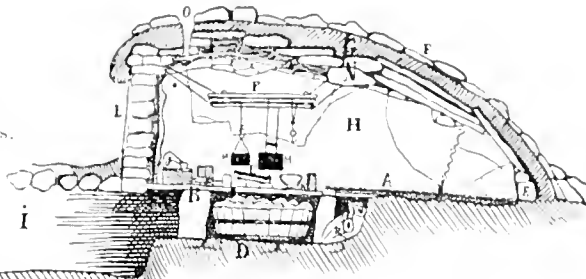
Besides walrus, there is also a large and persistent shoaling of narwhal and white-whale, which are hunted from kayaks. These large, meaty animals provide substantial winter depots for the lee-side inhabitants.

The rich blubber from narwhal and white-whale yields, as is well known, far more light and warmth than that from seal and walrus, and these districts are justified in boasting of the fact that they possess the largest and warmest houses. Their kennels are abundantly stocked, and the dogs are fat with shiny coats. Foxes, however, are scarce in some districts, and the Sea-king is only to be found near Kiatak, Igdluuarssuit, and Neqe. But the climate during the autumn is far drier here than farther southward, and one can practically always reckon on a long ice-hunting period which goes to swell the meat stores still further.

The only thing really scarce is bear-skin, which is rightly considered indispensable. Without warm bear-skin trousers it would be impossible to undertake long journeys in winter-time, and where there is no bear-hunting there will be no proper bunk-rugs to lie on either. The hunters on the windward side therefore characterize the lee-side inhabitants, with some malice, as kitchen-hunters who, in spite of their wealth of meat and their fat dogs, have to trade for bear-skin with the real hunters.

Avangnardlit, or those who live next to the north wind, includes the camps of Etah and Anoritoq. The conditions at

- A—Sleeping-bench.
- B—Side-bench for meat.
- C—Stone lamps.
- D—Flag-stone floor.
- E—Inside foundation stones.
- F—Outside foundation stones.
- G—Turf.
- H—Space above bench.



- I—Entrance.
- J—Box of meat.
- K—Woman knife.
- L—Gut-skin window.
- M—Cooking pan.
- O—Air hole.
- P—Drying shelves.
- R—Space beneath the bench.

POLAR ESKIMOS' HOUSE



ASARPAKA



KAVSSALUK



BEARDED SEAL  
(*Phoca barbata*)



KILLED NARWHAL

## LIFE AND HISTORY OF THE ESKIMOS

Etah are excellent for walrus hunting, and at the same time this spot is one huge singing mountain where the Sea-kings live. These are not to be found by Anoritoq, but as compensation there are there, besides walrus, excellent drives of nar-whal. Wherever these are killed they put their stamp on the indoor life of the winter. In both places there is excellent bear-hunting to the north and west, and conditions of life here correspond in every way to those in the south-west. There is wind in abundance, not from the south-west, but from north and north-east, and it often blows with enormous violence. Contrary to the south-west wind, however, it sweeps the coast clean of snow, and is therefore the wind one especially hopes for at the time when the ships are expected.

### A WANDERING PEOPLE

We have now dealt with camps within the district, but one must not regard the Polar Eskimos as fixed settlers, for in all the world one can scarcely find a people who lead a more nomadic life. The stone houses built by ancestors long forgotten merely stand along the coast; for, as the material is stone, the tooth of time does not tear them. It requires only a minor reparation before a stranger may move into such a house when it has been aired all through spring and summer.

No Polar Eskimo will live for more than a year or two in one place; then his longing to get into new conditions and to hunt on new ground awakes. With every spring comes the wander-lust, and when Nature itself shakes the yoke of winter from its shoulders the desire arises to strike camp and follow the many birds of migration which herald summer's arrival.

The removal is in reality nothing but a change of houses on a grand scale. Just as nobody owns the seal in the sea and the reindeer on land, so it follows that nobody has a right to possess a house. When Pualuna moves out of it to seek another place it is no longer his, and if Maja chooses this place of abode he may quite calmly move in.

All the excitement that accompanies the decision that must

## GREENLAND BY THE POLAR SEA

be taken nearly every spring as to where one intends to hunt the following winter, and all the merry moods of camp-striking which seize on everybody, find their expression in a shout of liberation resounding through the whole country which, for many months, has been bound in cold and darkness.

It generally happens that those who live on the south-west side, or nearest to the north wind, move to the lee-side camps to spend a couple of years in abundance, in peace and quietness acquiring new dogs. Many a confirmed lee-side inhabitant will go northward or southward in order to find bunk-rugs and blazing white bear trousers. Thus these peoples' lives are based on an ingenious training for the finding of a means of livelihood, a training so well adapted to meet the demands of their harsh country that the civilization built upon it makes of the Polar Eskimos the most care-free people in the world. Nowhere else can one live, as one does here, in such a state of practical and simple communism which gives equal rights and equal chances to everybody. One has tried to counter-balance even the fickleness of fortune by dividing all the larger animals into pieces which are distributed to everybody who, during the hunt, has not had the luck to be the first to harpoon, say, a narwhal. By this distributive arrangement every hunter is entitled to meat if only he will keep in the vicinity of the one who kills the quarry. This seems to be the result of humane sentiments developed during the fight for existence against niggard Nature.

There is yet another point. Men are not all born equally strong and supple, and it is generally only a select few who are able to avail themselves of the chance to throw the first harpoon into an unwounded animal. But if once the animal has got the huge bladder with its heavy trailer dragging behind it through the water, even the mediocre hunter can take part in the kill. It is for this work that he receives his just and generous part of the booty. For the maintaining of one's position as a breadwinner in this community one thing only is required—this is industriousness. The lazy man who will not take up his share of the work must go his own way.



THE CAMPERS





## LIFE AND HISTORY OF THE ESKIMOS

Is it possible in any community to get closer to the ideal than this, that the only reason for poverty is laziness?

The Eskimos thus live merrily together, treating their women and children kindly; and the families are bound to each other with bonds of affection, often manifested in a striking manner.

### PRIMITIVE VIEWS OF LIFE

It would not be possible to finish even the shortest sketch of the Polar Eskimos without briefly mentioning their peculiar and primitive views of life.

The Polar Eskimos do not believe in a God to whom one must pray, but they have as a foundation for their religious ideas a series of epic myths and traditional conventions, which are considered an inheritance from the very oldest time. In these their ancestors laid down all their wealth of experience, so that those who came after might not make the same mistakes and harbour the same erroneous notions as did they themselves.

The myths, which are handed down from generation to generation by the oldest to the youngest within the community, are to be looked upon as the saga of the Inuit people. These myths are partly simple narratives, partly a warning against those who will not submit to the demands of tradition, and for the rest they are tales of heroes who in every possible danger acquitted themselves in such a way that they are held up as glorious examples for coming generations.

Osarqaq, a wise and intelligent man, once defined to me their own conception in the following words: "Our tales are narratives of human experience, and therefore they do not always tell of beautiful things. But one cannot both embellish a tale to please the hearer and at the same time keep to the truth. The tongue should be the echo of that which must be told, and it cannot be adapted according to the moods and the tastes of man. The word of the new-born is not to be trusted, but the experiences of the ancients contain truth. Therefore, when we tell our myths, we do not speak for ourselves; it is the wisdom of the fathers which speaks through us."

## GREENLAND BY THE POLAR SEA

As an example of these myths, I will recount one which relates of “the time long, long ago when man was created.” With its grotesque forcefulness and deep originality it serves as a good example of Eskimo imagination. I translate it here as literally as possible from the dictation of an old Eskimo woman called Arnaruluk.

“Our ancestors often spoke about the creation of earth and man in the time of long, long ago. They did not understand how to hide words in written signs like you do ; they could only speak, the men that lived before us. They spoke about many things, and therefore we are not ignorant in these matters which we have heard mentioned time after time ever since we were little ones.

“Old women do not carelessly waste words, therefore we believe them. Age does not tell lies.

“At that time, long, long ago, when earth was to be, it fell down from above ; soil, mountains, and stones fell from the sky. Thus earth was.

“After earth was created came men. It is told that men came from the soil. Little children came out of the earth ; they came forth between willows, covered with willow leaves. And they lay sprawling between the dwarf bushes with closed eyes, for they could not even crawl. The soil gave them their food.

“It is next told about a man and a woman. The woman makes children’s clothes and wanders over the soil, where she finds little children ; and she dresses them and brings them home.

“Thus two became many.

“And when they were many they wanted dogs. And a man went out with a dog’s harness in his hand, stamping the ground whilst he called ‘Hok—hok, hok!’ Then the dogs poured forth from mounds, tiny mounds ; and they shook themselves, for they were full of sand. Thus man got his dogs.

“But the men increased, they became more and more. They did not know death that time long, long ago ; and they grew very old. At last they could walk no longer ; they grew blind and had to lie down.



WALRUS BREAKING THE SURFACE OF THE SEA



THE THREE BROTHERS : MITEO, APLAO, AND TAITSLAQ

## LIFE AND HISTORY OF THE ESKIMOS

“Neither did they know the sun; they lived in darkness; day never dawned. Only in the houses had they light. They burned water in their lamps, for at that time water could burn. But the people who did not understand how to die became far too many; they overcrowded the earth—and then a mighty flood came. Many were drowned, and there were thus fewer people. On high mountain-tops where often we find mussels we see the traces of this flood.

“Now the people were fewer two old women began to talk. ‘Let us be without day,’ one of them said, ‘if at the same time we may be without death!’ I think she was afraid of death.

“‘No,’ said the other one, ‘we will have both light and death.’ And as the old woman had spoken these words so it came to pass.

“Light came, and joy and death.

“It is told that when the first man died the corpse was covered with stones. But the corpse returned—it did not understand quite how to die. It put its head up from the stones, wanting to get up. But an old woman pushed it back again.

“‘We have sufficient to drag and our sledges are small,’ she said.

“For they were on the point of breaking camp to go hunting. So the dead man had to return to his mound of stones.

“Now, when the people had light they were able to go out hunting, and were no longer forced to eat from the soil. And with death came the sun, the moon, and the stars.

“For when the people die they rise to the sky and become radiant.”

The rules, which played an important part before the time of the mission, can be compared to a collection of unwritten laws which tell men what, under certain conditions, they must observe and conform to. As with most primitive peoples, these rules relate especially to birth and death.

All these rules of life, which, perhaps, seem unreasonable

## GREENLAND BY THE POLAR SEA

and childish to us, were maintained with much authority by the necromancers. These correspond to the medicine-men of other primitive peoples; they are in a position to act as middle-men between man and the powers that meddle with life. This they are able to do because they have knowledge of and intimacies with things which are hidden from ordinary mortals. Therefore, it is not everybody who may be a necromancer, for it is not everybody whom the spirits will serve. A man must have a vocation, and very special abilities are required, which are developed in the great loneliness of the mountains far away from people. Nature is imagined to be full of invisible beings with supernatural powers and abilities, the so-called Tornarssuit. But the necromancers have the power to subject these beings to their will to such an extent that they can employ them as "ministering spirits," which are invoked under the observance of secret ceremonies, preferably with extinguished lamps and to the accompaniment of a weird and gripping ghostly chant.

These necromancers are not frauds and charlatans, as one has so often been disposed to presume, but as children of their day they themselves have implicit faith in the seriousness of their mission. Their significance is based on the fact that the primitive religion lacks the worship of a deity; thus the weak and timid find a refuge with the one who understands how to master the mystic forces of Nature, forces easily offended and dangerous in wrath.

The following may serve as an example of the rules:

Those who have been engaged in burying the dead must keep quiet within their houses and tents for five days. During this period they must not prepare their own food or divide up the cooked meat. They must not take off their clothes during the night or push back from their heads the fur hoods. When the five days have elapsed they must carefully wash hands and body to rid themselves from the uncleanness which they have contracted from the dead. The Eskimos themselves give the following explanation of the reason for observing this rule:

"We are afraid of the big evil power which strikes down men with disease and other misfortunes. Men must do penitence



THE BEAUTIFUL ISIGAITSOQ



ESKIMO BOY



ESKIMO GIRL



INUTEQ



AJORSSALIK



KALE'S GRAVE



## LIFE AND HISTORY OF THE ESKIMOS

because in the dead the sap is strong, and their power is without limit. We believe that, if we paid no attention to that over which we ourselves are not masters, huge avalanches of stones would come down and crush us, that enormous snowstorms would spring up to destroy us, and that the ocean would rise in huge waves whilst we were in our kayaks far out at sea." But one may also acquire additional strength through one's life and increased powers to resist danger, with good fortune in all matters of chance, by using amulets and magic formulæ.

The amulet is a protector against danger, and imparts to its owner certain qualities; under certain conditions it may even change him from man into the animal from which the substance of his amulet is derived. An amulet of a bear which was not slain by human hands renders the owner immune from wounds; a part of a falcon gives certainty in the kill; the raven makes one content with little; the fox imparts cunning. Often the Eskimos wear a Poroq of a stone from a fireplace, because this has been stronger than the fire; or they smear an old man's spittle round a child's mouth, or put some of his lice into a child's head, thus transferring the vital force of the old one to the young.

The magic formulæ are "old words, the inheritance of ancient time when the sap of man was strong and the tongues were powerful." They may also consist of apparently meaningless connected words dreamed by old men. They are handed down from generation to generation, and the single individual looks upon them as invaluable treasures which one must not give away until death draws near. They are impossible to translate, and would therefore be difficult to recount in this short summary, which merely purports to give what is absolutely necessary for the understanding of these strange people who will so often be mentioned in the following narrative.

Of the religious traditions of the Polar Eskimos I may mention; furthermore, that man is divided into a soul, a body, and a name.

The soul, which is immortal, exists outside the man and follows him as shadow follows sunshine. It is a spirit which

## GREENLAND BY THE POLAR SEA

looks exactly like a man. When the man is dead it rises to heaven or goes down into the sea, where it foregathers with the souls of the fathers. And both places are good to be in.

The body is the abode of the soul ; it is mortal, as all misfortune and illness may strike it down. In death all that is evil remains in the body, wherefore one must observe the greatest care in dealing with the corpse.

The name also is a spirit to which a certain store of vital power and skill is attached. A man who is named after a deceased one inherits his qualities.

I commenced this chapter by stating that the Polar Eskimo does not know worship. Neither does he in the sense with which we are familiar from other religions ; he is content to bow down to the Great Unknown, and he is not afraid of admitting that he knows nothing and that his belief is probably wrong. The admission of his limitations and his complete honesty are here, as on all other points, unfailing.

But even if worship is denied him through the simple religion which was handed down to him from his forefathers, he is not a stranger to devotion. And as I am writing this my thoughts return to the many men and women out there whom in the winter evenings I have seen quietly and silently wandering up to the graves of their dead. Here they may remain hour after hour in a mute devotion, which assuredly is no meaner expression of the feeling of human impotence than that which, amongst more highly cultured peoples, manifests itself in prayer and supplication.





THULE STATION



A JOLLY EVENING AT THULE BEFORE BREAKING UP FOR THE JOURNEY

## CHAPTER II

### THE GREAT SLEDGE JOURNEY TO THE NORTH COAST OF GREENLAND: FROM THULE TO HUMBOLDT'S GLACIER

#### DEPARTURE FROM THULE

THE preparations for long journeys are made in a very serious spirit; but, as compensation, when the actual start is made and leave is taken of the camp, the mood changes to one of happy geniality, and one goes out to meet one's fate and adventures filled with joyful expectation. And thus it is now with us when at last the sledges are loaded and the dogs stand harnessed by the side of the old *Danmark*. By a strange coincidence, Mylius-Erichsen's old ship is to-day the background for our departure.

*April 6th, 1917.*—In celebration of our departure we were invited to breakfast on board, and the Eskimo members of the expedition and their wives were included in the party. Captain Hansen of the *Danmark* had done everything possible, and our appetites did justice to the luxuries of the table.

But the fever of travel had seized on us and we had in mind only the idea of getting away. Wulff and Koch had already set off, and were one day ahead of us. It had been necessary for me, after everything was clear, to spend the last night alone, so that once more I might go over all the lists and memoranda of those things which must not be forgotten. This, more than anything else, requires the peace of solitude, for there is the ever-present menace that if a single little thing is forgotten, it is impossible to procure it when one is hundreds of miles away from the depot, however urgently it may be needed. Probably most leaders of an expedition spend the last night before the

## GREENLAND BY THE POLAR SEA

start without sleep. All the keener is the feeling of relief and the appetite for work when at last everything is clear and ready for the journey.

The impatient dogs lie on the ice awaiting the signal for departure; whimpering and barking they strain at the traces, and a man is posted by each sledge so that no team may interfere with the right succession of events by forging ahead before the drivers are ready. Alas! when they are no longer in the vicinity of the permanent camp, where there is always plenty of blubbery walrus-hide to be had, this exaggerated joy of life will soon wane. This loud eagerness, this overflowing energy, will be damped all too soon when day after day they are offered many hours of monotonous toil on meagre rations. But to-day there is no limit to their wild, youthful courage, which bubbles over after the many days of rest and strong food. Everyone is in festive mood.

The weather is glorious, with a high sun above the white snow: the ice-mountains of the fjord gleam in the light and the basalt of the mountains out towards Cape Parry flash in merry colours.

The crew of the ship wander around examining with interest, and with the eyes of experts, the securely-rope-d sledges. Now and then they go out to stroke the dogs. The fuss of departure amongst these many sledges and all the busy people reminds one of the stir of a fair-ground.

When at length the start is made and the men have said their last word to the women who must remain behind, each man throws himself down on his sledge and races along the fjord for the first modest kilometres towards the point which we have set ourselves as the goal for the coming half-year. In an hour the *Danmark* is out of sight and the mount Umanaq, where lies the camp, is outlined as a small cone far, far away in the horizon behind us.

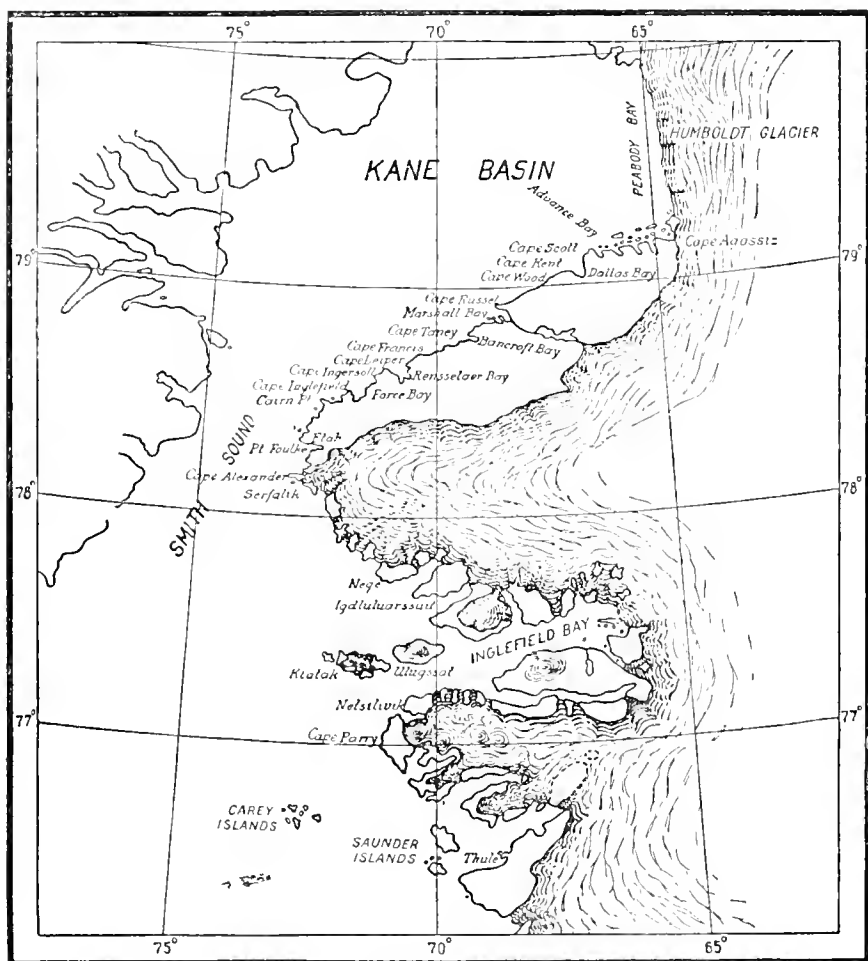
The dogs are in excellent condition and stretch out for dear life, and though the loads are heavy we hum along. Driving on the ice is easy, and the smooth iron runners of the sledges sing across the frozen snow. We started about four in the



THE *DANMARK* IN WINTER HARBOUR: THE SLEDGES OF THE EXPEDITION BEING  
COLLECTED FOR THE START



ONE OF THE SLEDGES NEAR ULUGSSAT



FROM THULE TO HUMBOLDT GLACIER



## FROM THULE TO HUMBOLDT'S GLACIER

afternoon and already by two o'clock in the morning we have covered the first 94 miles to Netsilivik, where we meet our comrades.

*April 7th.*—Netsilivik is a little camp consisting of three houses, and it is only because of the big heart of the Eskimo that it is possible for us all to get a roof over our heads. We are fifteen men in each house, and for the first few hours everything is sheer confusion. The dogs are tethered on the ice outside. We make camp and cook a well-deserved cup of coffee on the humming Primus, whilst the dogs are fed from the abundant meat stores of Netsilivik.

A glance through the peep-holes of the small gut-skin windows shows that our comrades and all their friends still lie in the sweetest of slumbers. The heat in the overcrowded stone house is scorching, and I therefore decide to pay a morning call at Iterfiluk's house, which lies a quarter of an hour's walk away from the others. Iterfiluk is a gossiping widow of fifty years of age, and she is a great friend of mine. In the course of the winter she has often been to Thule to make boots for the members of the expedition, and she therefore receives me with a shrill shout of welcome as I crawl through the passage into the house; I am only discovered at the very moment when I crawl up on to her greasy stone floor. Her house also is filled with travellers, and while her visitors are asleep she herself sits stark naked by her lamp, like one of the holy virgins guarding the lamp so that the precious light shall not be extinguished during the night. For up here it is reckoned a great disgrace if the guests of the house should wake up in the cold with the lamps gone out.

According to the custom of the country I also must pull off my clothes and press in between Iterfiluk and one of her friends, the fat Kiajuk, who wears the same paradisaical costume as the hostess. I sit chatting with her for a long time, until tiredness and the atmosphere of the house rob me of all strength, so that I, as all the other guests have done, droop down and slip into unconsciousness.

However, we could only afford a few hours of sleep and then

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we had to push on. For when one has many dogs requiring food it is considered good manners to leave the camps early. By noon of the same day we had started for the camp of Ulugssat on Northumberland Island.

The camps in this district generally consist of from three to five little stone houses; consequently, when occasionally one comes to a place with ten or twelve houses an impression of crowdedness is created akin to that felt by the countryman when he visits the capital. Up here we are so accustomed to expect nothing out of the ordinary that an uncommonly large town like this quite overwhelms us. Along the fronts of the houses we see everywhere stagings built of snow-blocks, covered with lovely fresh walrus meat, flaming red against the white snow.

The dogs of the camp were all tethered in a row, team behind team, on the ice-foot, and they gave vent to savage yelps at our arrival. According to the old traditions, which demand of the visiting sledge parties a polite reserve, we all stopped on the sea-ice, some distance from the ice-foot. On land, the Eskimos were standing by the houses, looking down at us silently but interestedly. In accordance with the custom of the country, long minutes passed before both parties gave vent to their joy over the reunion.

At Ulugssat it was easy to find quarters, for our hosts vied with each other in their invitations to us. Before we went in to see to our own comfort, however, all teams which were to take part in the long journey were given a thoroughly good feed from the abundant meat stores of our hosts. This was really great extravagance, as ordinarily the dogs are only fed every second day. But one permits oneself such extravagances when one is going out on an expedition.

The houses of Ulugssat were of all dimensions. There was the big Torngé's palace, in which the interior was divided into two benches with a sleeping capacity for at least twenty—a comfortable room, entirely lined with wood, and festively illuminated by three brilliant train-oil lamps. Delicious meat and glossy narwhal skin were temptingly laid out on platforms of flat stones built for this purpose near the lamps. Such was the

## FROM THULE TO HUMBOLDT'S GLACIER

house of the greatest hunter; but there was also the den of old Simigaq, where the passage was so narrow that, in spite of honest attempts, I did not succeed in squeezing myself through to pay her a short call.

Simigaq, "The Corked-up One," is the oldest woman of the tribe. In a small way she still invokes the aid of the "ministering spirits" when fate, or the camp, seems to oppose her desires. Otherwise she is like a living book for all those who like to listen to old stories and myths. And Simigaq is never pressed in vain.

### THE MEAT IS GATHERED

In Ulugssat the afternoon was passed in the buying in of meat for men and dogs; and we had a busy day of it as we ourselves had to be present everywhere. It is of importance to select the best flensing parts of the meat, preferably pieces where the skin is already separated from the flesh.

Furthermore, during the winter the women of the camp had been given commissions to make a lot of kamiks (shoes) and mittens, and these articles now had to be delivered, criticized, and paid for. In the midst of all this business which could not be delayed, we had to find time for all the unavoidable meat feasts given to celebrate our departure. Well meant as they were, we found them somewhat of a strain; fourteen meals of walrus meat in the course of one day is a considerable feat. It certainly eased the strain that the meat was served in different ways. Some of it was freshly boiled; some newly killed but frozen; some, again, decayed but frozen. This last sounds bad but tastes good. But this excessive hospitality made us all so heavy with food that we looked forward with longing to a night's rest.

In Ilanguaq, "The Little Companion's," house drum-songs were sung with great enthusiasm. I called, but I had to clear out quickly again as the heat was so excessive as to wet one through. Nevertheless, I was told next morning that the singers kept it up all night. As the population from the sur-

## GREENLAND BY THE POLAR SEA

rounding camps had poured in to bring me meat and accompany us on our way, there were many sledges about. Such an occasion for improvised musical feasts is greedily seized upon, and each one sings exclusively the drum-songs which he himself has composed.

Late in the evening, long after my housemates were asleep, I heard creaking footsteps in the frozen snow. A little later the door opened, and when she had carefully convinced herself that everybody else was asleep, old Simigaa entered and sat down by the head of my sleeping-place. It was her intention, she said, to make my sleep light. She wished to prepare my way towards the land of dreams with little sayings and legends; but first of all she wanted to give me for my journey the advice of an old woman, for she believed that age gives certain powers which one may hand on to the young. She felt herself in debt to me since last we met. I had once saved her and brought her to my home from a bird-mountain, where her not very courteous son-in-law had deposited her for the time being; now she wanted to pay that debt before I left. If it be true that age gives to old people's words a strength which can be transmitted to the young, old Simigaa was certainly a tremendous source of power. Not only was she the oldest woman in the tribe—red-eyed, toothless, baldheaded, crooked with rheumatism, nearly blind, and thus in possession of every scar which a long and hard life leaves—but, in addition to all this, she had now become so ugly and withered that they said she could not sink even if she were thrown into the sea. But in spite of this, the memory of the time when she was young, and her powers were directed to quite different ends, still lived fresh and merry in her consciousness.

She herself told that she had been the possessor of an extraordinarily fair complexion, and of thick hair which, like a waterfall, hung down about her naked body. She was also tall and deep-bosomed, and to all these charms was added a care-free and happy temperament. The men vied with each other in their efforts to win her favours, and her attractiveness resulted in several marriages. At last she had found a haven with a

## FROM THULE TO HUMBOLDT'S GLACIER

man called "The Little Throat"; she had been married to him for several years. But this was when the white men only fitfully visited "The Land of Men," and when guns and the other implements for the daily catch were unknown. The use of the kayak had been forgotten, and now one camped near the bird-mountains during the summer when the sea was open. It happened not infrequently that there was a famine during the winter, for one must gather many Sea-kings before one could lay in a store large enough to see one safely through the Polar night.

On one occasion, when there had been a poor hunt and everybody was hungry, "The Little Throat" suddenly disappeared from the stone hut. It was no longer good to be there. But, strangely enough, the whole stock of puppies disappeared at the same time, and this aroused Simigag's suspicions. She went to the mountains and tracked down her man, who sat gorging himself on the puppies, which he had roasted on a flat stone.

The annoying part was not so much the fact that the puppies, which should have hauled their sledges on their journeys next spring, were killed, but rather the circumstance that "The Little Throat" had deceitfully eaten them alone, without asking his beautiful woman to share in the feast. Naturally this led to a divorce. Thus "The Corked-up One" had again passed from hand to hand for some time until she had married Kajok, called "The Yellow One," with whom she had lived happily until his death.

And now this weather-worn and hardened old woman, who had lived such a life of good and evil, was sitting at my head, wanting me to share the benefit of her experiences, the result of her long life. On a long journey it would be as well to be on good terms with the spirits that rule over mountains and abysses; the loneliness also had its powers, of which puny man must beware. Therefore she came to me this last night with a few magic songs.

Oh, she said, these magic songs were poor and insignificant, a collection of short, meaningless words. But what about that?

## GREENLAND BY THE POLAR SEA

After all, we humans understand so little of that which is met with in places where one is alone with the silent world.

This was her explanation and her excuse. And while, possessed like a pagan priestess, she mumbled her songs through her toothless gums, I lay close to her on my rug and listened.

Here is the song of life, the song for him who wishes to live :

Day arises  
From its sleep,  
Day wakes up  
With the dawning light.  
Also you must arise,  
Also you must awake  
Together with the day which comes.

She murmured the words to me, whispering and distant in her ecstacy, until they were as if burnt into my consciousness.

Then came the song sung by men who, driving heavily and slowly, are in danger of death :

Forth, forth,  
Sledge, glider, travelling tool !  
Your fat cheeks you must smooth,  
That they may run easily !

If the game disappears, so that one must starve, the following is sung :

Heigh—from the deep  
Sea-beasts I caught,  
Heigh—heigh,  
Walrus I killed  
From the deep,  
Heigh—heigh,  
Narwhals I harpooned,  
Black-sides, seals did I take  
From the deep. . . .

Thus a good catch is secured.

She chanted words which disperse the fog ; the bear-song which lures forth the bear ; the drinking song which procures water for the thirsty ; and songs to be sung during the climbing of mountains—all of them useful and indispensable for him who travels to unknown countries.

The mountain-song was the last one I heard, then the



THE PACK-SLEDGES SET OUT FROM NEQE



YOUNG BEAR-HUNTER



TWO ESKIMO BOYS OF SEVENTEEN YEARS



## FROM THULE TO HUMBOLDT'S GLACIER

monotonous voice overpowered me, and when I opened my eyes after a few hours' sleep, old Simigaq had long ago crept home to her modest den. I jumped down from the bench and peeped out through the window to look at the weather. It was light as day now, even in the middle of the night; the sky was clear, without a single cloud, rounding itself like a blue dome above the land and the white ice. A faint pink tinge announced that sunrise was not far away, but it was yet too early to break camp.

Next day, in brilliant sunshine, I drove on with Ajako to the camp of Igdluarssuit, while all the other sledges went directly to Neqe. We still wanted a couple of paek-sledges and some more meat, and at Igdluarssuit lived Sipsu, an excellent hunter and experienced sledge-driver, whom I would fain have with me on the last paek-sledge right up to Fort Conger.

*April 9th.*—The following day the sledges and all the meat procured at Neqe were collected. The heaped meat formed a considerable bulk, and we had twenty-seven sledges and 354 dogs to transport it. This was rather a large apparatus to set moving for the sake of six sledges, and to understand it the following explanation is necessary :

As already mentioned, all our equipment was Eskimo throughout, as were also the provisions. Walrus meat is excellent food for the dogs, but it has the great drawback of containing 65-70 per cent. of water. This makes it very heavy for transport, and whilst one can reckon a pound of pemmican a day for each dog, one must reckon of walrus meat or skin about three pounds a day, or from five to six pounds every second day. And besides our own dogs we had, of course, to feed the teams of the paek-sledges as well.

We planned our journey so that altogether fifteen sledges were to go to Humboldt's Glacier, thirteen to Cape Constitution, eight to Thank God Harbour on Polaris Promontory, and by the time we arrived here the loads would be so reduced that the six sledges for the long voyage could take over everything.

The meat, ordered beforehand, lay ready for us on the ice-foot. I had only to pay for it and then distribute the loads.

## GREENLAND BY THE POLAR SEA

The payment generally demanded consisted of powder, lead, and percussion caps. This part of the business was easily and quickly arranged. It is not difficult to come to an agreement with Eskimos with regard to provisions for a large expedition for an indefinite period. They fully sympathize in a matter like this. Greater difficulties arose in the distribution of the meat on the twenty-seven sledges; for here one had to consider not only the strength of the teams but also the quality of the sledges.

When everything was in order the motley train set out, and the eager dogs rushed across the ice to the accompaniment of screeching whip-lashes, soon to disappear behind the nearest headland. Our road for the first six miles lay across the frozen ocean as far as Cape Alexander, where the water is always open, even in the severest weather. This water we had to get round by driving up across the inland-ice.

We started at four o'clock, and the glacier where the ascent was to commence we reached at about seven in the evening. Here we all stopped and made the inevitable cup of coffee, the local cup that cheers. The passage does not take more than a couple of hours, but it is generally exceedingly hard work. First one toils up the steep slopes, dripping with perspiration; then, at a height of three hundred metres, comes the biting north wind which, in clear weather, always rages round the neck of Cape Alexander. The drifting snow is as thick here as an English fog, cold and damnable, and often so violent as to make it almost impossible for one who comes from the south to drive the dogs up against the wind. The habit of strengthening oneself with a cup of good, strong coffee is therefore not to be wondered at.

It was difficult to get the heavy sledges up the glacier, which is always blown hard and smooth; but as there were many of us to share the burden, the crossing was successfully accomplished. The storm and the drifting snow we accepted with a good temper, knowing that we would doubly appreciate the calm weather which always awaits the traveller on the frozen sea.

## FROM THULE TO HUMBOLDT'S GLACIER

### GUESTS OF THE AMERICAN EXPEDITION

*April 10th.*—At four o'clock in the morning we arrived with all our train at Etah, where we camped on the ice just outside the headquarters of the Crockerland Expedition.

In spite of our early arrival, we had the heartiest reception from Captain Comer, who is always early up and about. He invited us into the house, where Mr. McMillan offered us breakfast, an invitation we could only accept a few hours later when our populous and elaborate camp was made.

For three days we were the guests of our American colleagues, and during that time we were shown every kindness. We had originally decided to spend only a day here, but bad weather forced us to prolong our visit.

During our stay Mr. McMillan kindly helped us with some pemmican and biscuits, an excellent supplement to our own stores.

*April 11th-12th.*—We spent the days at Etah killing time in various ways. We dived into the very extensive library of the Crockerland Expedition, visited the Eskimo families which were all old friends of ours, and every evening ended with a ball which lasted into the early hours of the morning.

The Americans had a wonderful gramophone, which entertained us greatly with its varied and select repertoire. There was something for everybody's taste, so that at times we heard songs from all the operas of the world, sung by Caruso, Alma Gluck, Adelina Patti, etc., and at other times we abandoned ourselves to musical debauches, for a change indulging in tangos and one-steps.

People at home who have access to real music, performed either by themselves or by professional artists, generally turn up their noses at our joy in the gramophone, which they regard as a musical disgrace. I do not consider that I am more unmusical than the average man, but I confess, nevertheless, that I am one of those who pay homage to the gramophone. Wherever I have met it, be it in a winter camp among the

## GREENLAND BY THE POLAR SEA

Eskimos or among the Danish families in the Greenland colonies, it always brought a peculiarly pathetic greeting from all that which we up here so keenly long for, but must forgo ; and I have seen many a man, whom one could not otherwise accuse of sentimentality, forcibly subdue the emotion which the gramophone's music aroused.

The three days spent in involuntary idleness took a good slice out of our meat stores. But one day, as I was trying to make up my mind as to how much more we could permit ourselves to eat in case the storm should last, a man named Majaq appeared, and he rid my mind of all cares. He had spent spring and autumn by Renslaer Harbour and told me that he still possessed considerable meat stores there, which he put entirely at the disposal of the expedition if only we would pay him in ammunition ; this offer we of course accepted with joy.

On the 13th of April, in the afternoon, the weather at last calmed down so that we could think of breaking up. There was still a gale, but as under all circumstances here in Etah wind and good weather go together, we made ready and drove up against the wind. Towards morning we reached Anoritoq and camped for the night.

### ICE-BEAR, THE WIDOW'S SON

By a freak of fate Anoritoq possesses a name which means "The Windswept One." This little camp, which has become world-famous as the winter quarters of Dr. Cook's pretended Polar Expedition, is, however, the only place in the neighbourhood of Etah which is always dead calm.

Anoritoq's name is derived from an old tale about a certain Anoritoq who reared a bear.

The woman Arnajaq tells the following :

Once there was a man named Angutdligamaq, who himself never hunted. He occasionally went out on the ice, and if he chanced to meet a man dragging a seal along, he killed him and took the seal home as his own catch. In this way he lived.

## FROM THULE TO HUMBOLDT'S GLACIER

His countrymen dared not rebel against him because he was so strong, and thus it came to pass that through many years he lived by murder and robbery. But one day they decided that he was going too far, so they agreed to defeat him with cunning. "Listen, Angutdligamaq," someone said, "you do not know what fun it is to go hunting with others; you ought to try it, I am sure you would then join us every day." When Angutdligamaq heard this he joined the hunters of the camp on the next day. But as he was quite unused to the life outside the houses he was very clumsy, and his comrades had to help him in everything he did. In the evening they all lay down to sleep in a snow-hut, but he did not know how to set about this either.

"How does one rest in a snow-hut?"

"One sleeps best if one pulls one leg out of the trousers," the others replied.

This he did and soon he was fast asleep.

But as soon as his comrades saw his bare behind, they rushed up and buried a spear in it. And Angutdligamaq, bellowing with pain, jumped up in the air, and thereby forced the point of the spear still further in and died. His comrades then returned home.

"What has become of Angutdligamaq?" the mother asked, she who was called Anoritoq, "The Windswept One."

"He was killed," the others answered.

"When next you catch a pregnant bear, then give to me the embryo that it may be my child," the woman begged of them.

Then one day, when the hunters had caught a pregnant bear, they brought the embryo home to the woman, and she reared it with blubber from her lamp, and soon it was so big it could catch seals for her.

The bear was called Anoritoq's son.

In the winter, when the great darkness came, the bear could no longer see to catch the seals, and then it started stealing from other men's meat stores.

"You must not steal," the foster-mother anxiously warned it; "your cousins will stop you and the people will kill you."

The dogs were called the bear's cousins.

## GREENLAND BY THE POLAR SEA

“ Oh, I will run away before the wind,” the bear said, “ then the dogs cannot scent me.”

Nevertheless, one day things went wrong. The dogs stopped the bear, and the people killed it.

For many days the woman waited anxiously, for although nobody had told her, she feared that this animal, of which she had now grown fond, had been killed.

One day when, as usual, she had warned it not to steal, she had blackened one of its sides with soot from her lamp.

“ In this way I shall at least know for certain if it should be killed,” she said.

She now told the people in her camp to drive out and ask in other places whether anyone had killed a bear with soot on one side ; and before long sledges returned and told her that a bear like this had been killed in one of the neighbouring camps.

The woman sorrowed greatly when she knew that her foster-son was dead. Weeping, she left her house and sat down on the headland outside the camp. As she looked across the endless ice which had previously been the bear's hunting-ground, she sang :

In vain looks the waiting one,  
In vain cries the sorrowing ;  
Hard is the lot of the woman  
Who must shed tears without comfort ;  
Heavy is the lot of the woman who must survive  
Her only son.  
Bear, bear,  
Will you never return,  
Bear, bear !

Days and nights elapsed, and the woman would take no nourishment. Sobbing, she sang her song until the tears stiffened on her cheeks as her body turned to stone.

One still sees her lifelike form on the headland by the camp. Her mouth is covered with a layer of hardened blubber, for they say that it brings luck to the bear-hunter if, before he goes out, he tries to feed the bear-mother with blubber. And in the quiet winter nights, when the northern light sends its ghostly rays across the heavens, one sees old hunters going towards the

## FROM THULE TO HUMBOLDT'S GLACIER

mountain under some plausible pretext. The next day fresh tracks in the snow show that the bear-mother has had visitors, and her face glistens with blubber.

### THE FIRST POLAR-ICE

Before dawn, just as we had got up to light the Primuses, we were surprised to hear the barking of dogs and strange voices outside. Two young men had returned from a successful hunt of musk-ox in Ellesmere Land, where they had slain forty animals. They provided us generously with fresh meat and tallow; we then parted, each going his own way.

From Anoritoq to Renslaer Harbour we had a beautiful but strenuous day's journey. From Cape Inglefield to Cape Ingersoll we travelled through strongly pressed-up ice. During this part of the autumn the whole of Kane Basin consists of huge drifting ice-floes; the current here sets very strongly towards land, and, whilst new ice is being formed, blocks of ice are pressed up where the drifting floes freeze together. These pressure-ridges are often so tall that one must hew a way through with axes. The heavily loaded sledges have to be slowly and carefully worked across, so that they shall not be crushed in a sudden fall from a height of several metres; often they stick in awkward and desperate positions, where several men's strength is required to free them again. This is hot and laborious work, which, however, generally leads to so many comic situations that the task is shouldered with good temper.

Near Cape Ingersoll we climbed on to an ice-foot about sixty metres broad which stretched before us as a beautiful and easy snow-free road. Above us towered the high red sandstone mountains, with an even gradient of snow-clad talus at the foot and steep preeipices near the top. The red rays of the evening sun were refracted on to the snow and the mountains, and with this beautiful landscape before us we drove at a rapid trot to the camp by Renslaer Harbour which the Eskimo calls Aunartoq.

The inner bend of this bay gives an exceedingly friendly impression. The country hereabout consists of beautiful

## GREENLAND BY THE POLAR SEA

rounded hills of light granite, with moss and grass peeping out wherever the snow is blown away. Along the coast tall, elegant, and proud sandstone mountains stand on both sides of the bay, like a majestic porch leading to the little cove where the Eskimos have built a camp. The coast mountains, especially at sunset, are tinged with red, which contrasts beautifully with the greyish-white gneiss in the sheltered cove from which an even and uniform high plateau stretches like a large plain right up to the inland-ice.

### MAJAJQ'S MEAT-PITS

We were all curious to know how far Majaq would be able to keep his promise. He had spoken about masses of meat, but the Eskimo's idea of masses is often quite relative. As soon as we had made camp and tethered the dogs, I went with Majaq up to the little headland where his depot was supposed to be. With justifiable pride he pointed out over the plain and said: "All the meat which lies here is now yours; may your dogs grow strong on my catch."

I saw at once that the man had not exaggerated; on the contrary, it would be difficult for us to use all he had offered. Here were seals and meat in abundance. While the tents of the expedition were pitched and snow-houses were being built, we pushed the huge stones away from the meat-pits to get at the seals. Thirty-five large, fat seals we took, and four delicious bearded seals.

This represented such a large addition to the meat we already had that we decided to rest for a day for the express purpose of allowing the dogs to eat as much meat as they could possibly get down. We spent this holiday, which abundance of meat allowed us to take, in studying the historical place whereto Majaq's meat-pits had led us.

Majaq is one of the best hunters of the tribe, and is to be counted among those who are not fain to leave the neighbourhood of Cape York, where the bear-hunts in Melville Bay tempt one to remain. But last year he had promised his wife



## FROM THULE TO HUMBOLDT'S GLACIER

and half-grown son that for once they should be given an opportunity of a good airing for their clothes. They had lived by Cape York for such a long time that they almost stank with fixity of abode; therefore they had decided on this great removal.

### THE EIDERDUCK

Anoritoq had at that time been uninhabited for fifty years. The last man to settle here was called "Eiderduck." Originally he had lived further southward, where there were many people, and where one thus did not suffer from the emptiness and longing due to the lack of people between the camps. But a local hunter had tried to rob him of his very beautiful wife, and as the wife did not appear to have sufficient respect for the "Eiderduck's" rights, the latter at last decided to move further northward.

But on their way through the camps along the lands they fell upon illness and bad hunting. This happened in the time when evil fate might sweep down on men suddenly and unmercifully; and at that time it was the custom to leave behind, in some empty house which they casually came across, those who could not keep up with the other travellers. As a rule, those left behind were children. Windows and doors were covered with large stones, too heavy for the exhausted ones to move; thus they were left buried alive. This was not done with evil intent, it was in accordance with one of the traditions of the restless hunters. Weeping, and with loud lamentations, they tried to get away as quickly and as far as possible from the doomed, who in the course of a short time died of starvation and cold. In this way the "Eiderduck" left his children, one after the other. Only one child, the parents' favourite, accompanied them on a sledge, bundled in a skin. But as during the journey they became half-witted through illness, hunger, and exhaustion, the "Eiderduck" in the end asked his wife to throw the child from the sledge, so that it might have a quick and painless death in the cold. And this she did.

The following day they repented of their heartlessness, but

## GREENLAND BY THE POLAR SEA

too late; and in their regret over their own inhumanity they continued to travel further and further north. At Anoritoq they met many people who lived happily; but sorrow weighed on their minds and they could not bear the company of people, so they continued their journey northward until at last they settled by Aunartoq. Here they lived alone for many years, and never travelled to visit other people. Those few who visited them always spoke of their great hospitality, but never did they open their mouths to let out a superfluous word, never was a smile seen on their lips. Once when someone went to visit them they were both found to be dead. There was a sufficiency of meat in their stores, and the visitors concluded that they had starved themselves to death so that they might follow the child which they had killed.

Since the "Eiderduck's" time nobody had lived by Renslaer Harbour; the place was in evil repute. First now in 1916 Majaq had moved out here, but although the catch of spring and summer had been so abundant that all his meat-pits were flowing over, he nevertheless moved in the autumn down to Etah, so great was his longing for companionship. Majaq chose to struggle through the dark period far from his own meat stores, wherefore his countrymen said that he was mad; but the loneliness had weighed on him so heavily in the place where lay the bones of the "Eiderduck" that he preferred to live in poverty among fellow-creatures.

### "SPRING-TIME" CAMP

The camp Aunartoq, the place where spring comes early, consisted merely of three houses, and these were all very old. Among some ruins I found a piece of a sledge which seemed to have been made entirely from whale-rib. There was also a whale's head built into the wall. It was strange to see that even so far north, in places where the ice seldom quite disappears, the whale has played an important part, just as it has done in other parts of Smith Sound. Besides these things I found bones of walrus, bear, and musk-ox, and, of course, an



THE MEAT MATALOOR MAJAO



THE MEAT MATALOOR MAJAO



WINTER-HOUSE BEFORE THE SNOW FALLS



MY OWN DOGS READY FOR STARTING

## FROM THULE TO HUMBOLDT'S GLACIER

abundance of gnawed seal bones. Many meat-pits of the usual form were built about the houses.

I was somewhat surprised to find no bones of reindeer; for this peaceful expanse between the ocean and the inland-ice has, at any rate during an earlier period, given the necessary conditions of life for many reindeer. The reason may, of course, be that this place was uninhabited at the time when the Eskimos hunted reindeer. Strange as it may seem, the reindeer has been looked upon by the present tribe as an unclean animal not to be eaten. It was only after 1864, when the immigrants from Baffin's Bay brought new customs to the country, that one learned to consider the reindeer as a meat giver; since then it has been hunted with such thoroughness that it is almost extinct. The hunting conditions of Renslaer Harbour are briefly as follows:

Every spring many seals and bearded seals are caught by the Utut method on the ice; one can engage in Utut-hunting here practically all through the summer, as the ice generally remains on the water in the bays. Not until the middle of August does the melted water above the ice become so deep as to make this method of hunting impossible. Of late years the ice has not broken along the land, although very broad fissures have appeared round the headlands. Occasionally, however, walrus will be found in these elefts. Many hares are to be found inland, and occasionally reindeer.

In the afternoon as soon as our work about the meat-pits was finished and the bearded seals and seals cut up into pieces of convenient size for the requirements of our journey, we had a party. We could not help rejoicing because of the great abundance which Majaq's meat depots had suddenly added to our possessions.

The feast began with the production of a cinema film, which was a great success for all the actors. It was played near Majaq's hut, and even some of the largest and best of our dogs were allowed to take part in the play. The action of the play was as simple as possible, as it merely pictured the arrival of a lot of visitors to Majaq, who, with smiles and large gestures of

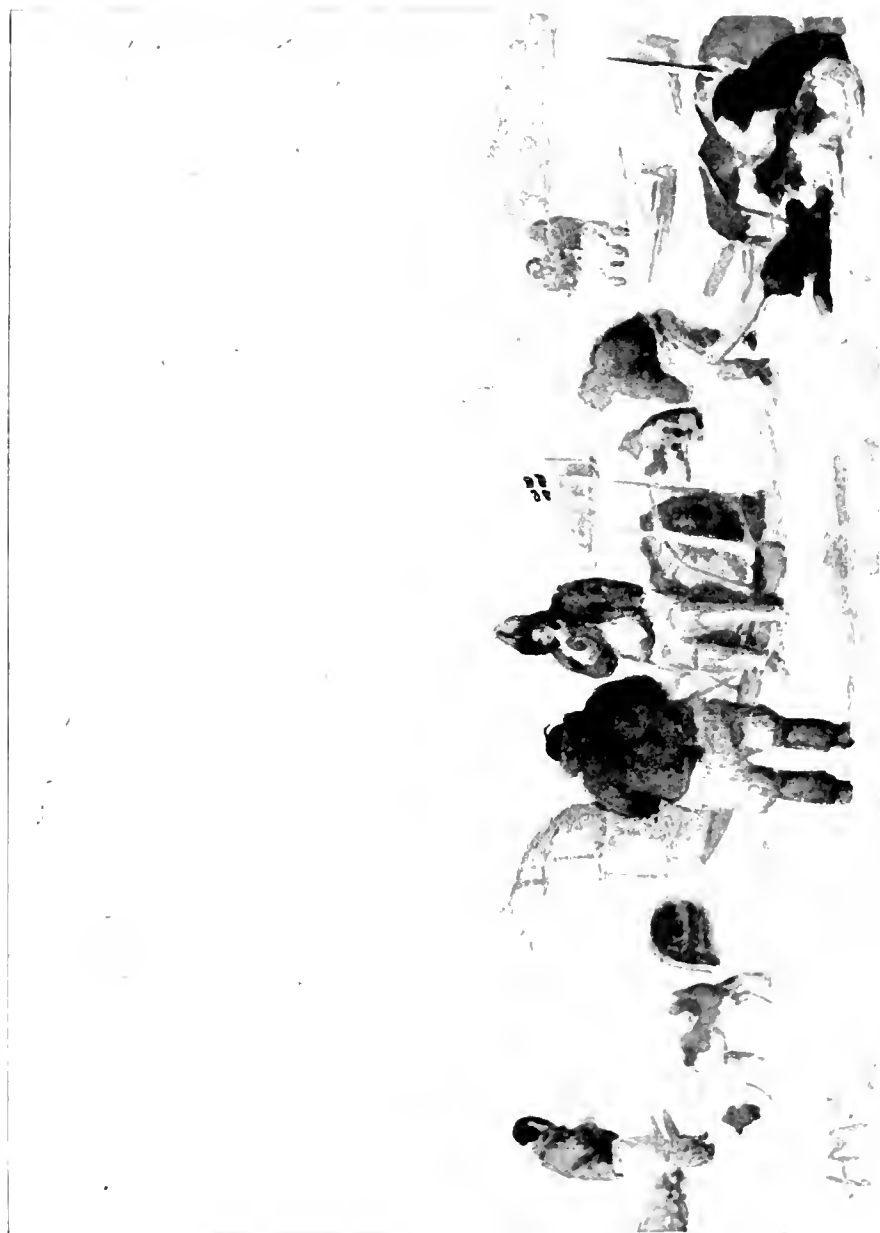
## GREENLAND BY THE POLAR SEA

the hands, led them towards the piles of meat which we had just collected from his depots. Here we then partook of a brilliant feast.

Although the proceedings amused them, the Eskimos regarded the performance merely as a series of mad antics, and the actors did not seem to put great trust in Ajako, who, during his visit to Denmark in 1914, had seen similar things, and now told them that the pictures would at some time become alive. They listened to his explanations but paid only slight attention to such postulates, as they did not wish to accuse Ajako of a loose connection with the truth.

Wulff handled the camera, and he did it in such a way that their spirits were further raised by the shouts with which he stimulated the actors. Unfortunately, a year and a half was to elapse before the result could be shown.

After this mimic feast we started a real feast on rotten meat of bearded seal. The bearded seal is usually divided among the hunters, the most coveted parts being those from which the indispensable seal straps are taken. But Majaq had already cut out so many straps from his great catch that the last bearded seals he caught were cut up without separating the skin and blubber from the meat. The result of this mode of preservation is that the big flensing pieces which are put down during early spring in stone mounds, far down in the cold soil, get only the slightest touch of decay. No ray of sun must reach the flesh which, when the sparing warmth of summer has gone, looks like half-dried, smoked meat, and tastes excellently. One very seldom sees bearded seal served in this way, and our appetites were voracious. Our dogs also were given their share, and although they numbered 185, they had as much as one dared to stuff into them without danger of bursting their internal organs. After the meat coffee was served, succeeded by an exhibition on ski which furthered digestion of the solid meal by much laughter. Very few Eskimos have any practice in ski-ing down the hills, and as most of their efforts resulted in somersaults, we had plenty of opportunity for the exercise of our diaphragms.



H. C. A. M.

SNOW HUTS NEAR AN ICE MOUNTAIN





## FROM THULE TO HUMBOLDT'S GLACIER

That evening will never be forgotten. Soon the sun would be shining night and day, but as yet it still disappeared below the horizon for a few minutes, and created at its setting those wonderful ranges of illumination on the sandstone mountains and the white snow. These beautiful moments are over as soon as the more uniform light of the midnight sun shines night and day. The landscape was wonderful, not merely because the coast with the broad ice-foot and the beautiful coast mountains was in itself so charming, but also because the whole of Kane Basin, with its irregular plain of pack-ice, gave a wild and grand view to the north; and every night the mountains of Grinnell Land appeared in the fleeing sunlight as burning, phantastic castles on the western horizon.

### GREAT BLOOD-BATH FJORD

*April 16th.*—On the 16th of April we continued our journey northward on a broad ice-foot which gave easy and rapid progress. The ice-foot is only formed in places where the water ebbs and flows to a considerable height. When the water falls, at ebb-tide, the cold is already so severe by the end of September that the coast, up to the high-water mark, is covered with a crust of ice, a thin layer being deposited at every ebb. In the course of October and November the ice-foot has reached its full thickness and forms a belt along the coast, a ribbon of ice following all the branchings of the shore. The level of the top of the ice-foot marks the highest tide of the year. Viewed from the sea-ice it stands boldly like a wall.

Where the coast consists of steep mountains the ice-foot is quite narrow, because in these places it hangs on the sides of the cliffs without support beneath; but where the coast is flat the bottom of the sea supports it, and in this case it is often very broad. In no place is it broader than along the coast of Kane Basin, where it measures from sixty to one hundred metres.

It was a joy to us all to shoot along this lovely road. We

## GREENLAND BY THE POLAR SEA

followed the foot of the beautiful sandstone mountains which, with flaming red colours, fresh as ruddy cheeks against the white snow, flanked our way. Out to seaward of us were the pressed-up ice-floes of Kane Basin, where deep snow made bad travelling, and, as we passed above it, raised beyond all its difficulties on the *chaussée* of the tidal waters, wantonly we cracked our whips at all this devilment which we had robbed of all opportunity to trip us up and hinder our quick progress. Washington Land could already be discerned ahead. Everywhere was April's sun and high spirits.

At Cape Taney we passed four large tower-traps and six ordinary fox-traps; the former are rather common here but unknown in the rest of western Greenland.

A tower-trap is about 170 centimetres high, built in the form of a beacon; the Eskimos call it Uvdliſât, which signifies a trap which may be left for several days without inspection. The foxes are caught in the following manner: Rotten seals are put at the bottom of the hollow stone beacon, which is built in such a way that it is roomy at the base and very narrow towards the top. So as not to arouse the suspicions of the fox, the opening is covered with willow branches smeared with blood. When a fox jumps down into a trap it cannot get up again; and in the course of a few days several foxes may be caught in the same trap.

At Marshall Bay we divided into two parties, so that eleven sledges, with Dr. Wulff as leader, drove right out on the broad bay where travelling was easiest, while Koch and I with two other sledges drove inland by the head of the bay looking for Eskimo ruins. For our guide we had the great Torngé, who had lived here himself in 1916. His longing for reindeer-hunting had lured him to these northern parts. Next to bear-hunting, reindeer-hunting is the most exciting game an Eskimo knows. It is considered more "swell" to catch a bear, but otherwise the hunting of reindeer is without comparison the most elegant. Wild reindeer are very shy, and to get within shooting distance not only skill and cunning is required but also an incredible amount of endurance. They provide both tender

## FROM THULE TO HUMBOLDT'S GLACIER

and savoury meat and delicious tallow, and their skins are in great demand.

The place where Torngé wintered is called by the Eskimos Inugarfigssuaq or "Great Blood-Bath Fjord." As in all places where human activity has left its marks, tales are bound up with the country. Torngé tells the following :

At the time when there were many people and all countries were inhabited, many houses were to be found by the Bight of Qaqaitut near Advance Bay, not far from the great glacier.

One day two boys started fighting here ; their grandfathers stood looking on. It so happened that one of the old men interfered and started thrashing one of the boys. But the other grandfather became so enraged by seeing his grandchild thrashed, that he went forth and killed the grandchild of the other man. But then the first grandfather killed the other grandchild and the murder of the two boys gave occasion for everybody at the camp to take sides ; so the first thing they did was to kill both the grandfathers. This beginning made people wild and gave rise to a senseless slaughter. A madness which no one could explain had seized on the camp, and all travelled southward, fleeing and killing, so that all the little bays the sledges had to cross were filled with slaughtered men. And all the dead showed black against the white ice, just like seals sunning themselves on a spring day. How long the killing lasted no one knows ; but suddenly they discovered that rage had carried them so far that really one had no quarrel at all with the man one killed. Then they stopped, heartbroken over the wrong they had committed. But the flight continued southwards to lands where the sun was warmer and the winter nights shorter.

And the largest of the fjords where most dead were lying was later on called "Great Blood-Bath Fjord. . . ."

This is a simple and naïve Eskimo tale of the origin of war—naïve, but eternally true wherever man kills.

This myth Torngé told us as an introduction to the tale of

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his wintering. He was interested in everything connected with the camp and the hunt, and with great perspicuity he gave us a picture of the life he had led so that all his great and small joys stood lifelike before us.

As a rule the winter-ice lies untouched until the following autumn. But the end of August or the beginning of September—so late that a thin ice is already being formed—the rivers melt round basin-like holes in the ice at their mouths, and a fissure which during summer-time has formed off Cape Russell widens out broadly. This is all the open sea they have.

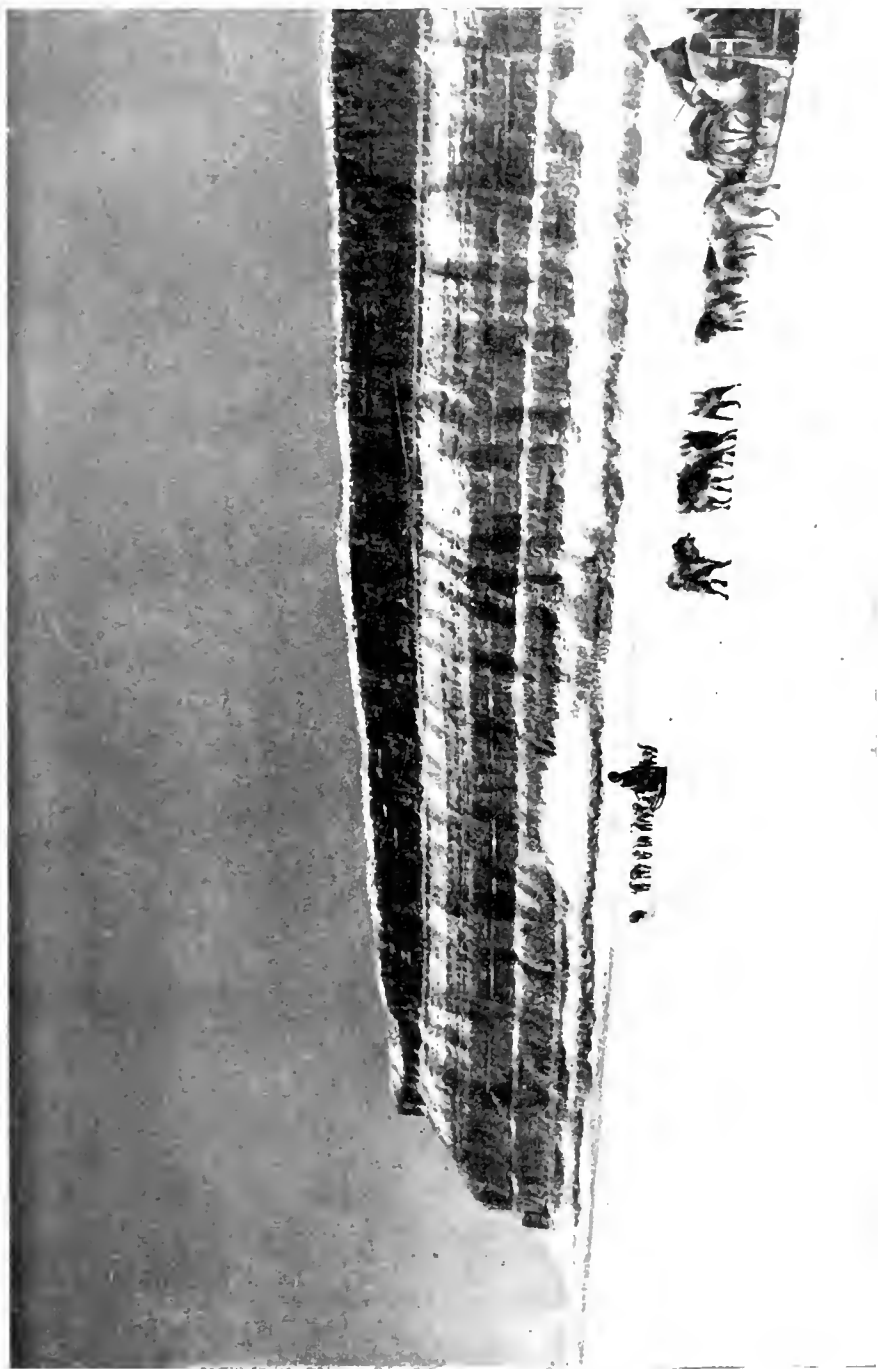
The inland tracts were prolific in hare and reindeer. Torngé and three camp-fellows had killed no less than a hundred during the autumn. They had moved far into the country to some large lakes situated near the inland-ice, and here they had camped in small stone huts during August and September. These huts are primitive houses, having walls of stone and roofs of hide. Women and children accompanied the men on these expeditions, remaining by the huts while the men were hunting.

The best hunting memories of Torngé's life were linked up with his visit to the surroundings of Marshall Bay. The wintering had one drawback only—it was difficult to find sufficient food for the dogs, as the seals did not last out well. One felt the lack of narwhal and walrus, which yield more lasting food.

Eiderducks and ice-gulls were to be found in all openings of the ice, and on the lakes long-tailed ducks and loons.

During a hunt for reindeer, salmon was found on the top of Cape Russell at a height of about 300 metres. The lake was not very large, but notwithstanding this many salmon were caught, some of them as long as a man's arm.

In the camp were found altogether eighteen ruins of houses, with many tent-rings and meat-pits. Torngé's house was an old ruin which had been repaired. In the wall we found the remains of whale-ribs, and in the midden remains of whale, walrus, bearded seal, seal, musk-ox, reindeer, fox, and hare. Fishing-hooks made from the antlers of reindeer had also been found.



FINE DRIVING ALONG THE BEAUTIFUL FRONTAGE OF THE MOUNTAINS OF WASHINGTON LAND



NASAITORDLUARSSUK : THE YOUNGEST MEMBER OF OUR EXPEDITION



THE LAST IMMIGRANT FROM BAFIN LAND : MERQUSAK

## FROM THULE TO HUMBOLDT'S GLACIER

Torngé's house was large and beautifully built; it was of the type called Samisulik, containing a large main room with a small room at the side, both provided with benches. In the small side room his daughter and son-in-law had been living. A short distance away we found an unusually large ruin, which had an inside circumference of rather more than 30 metres. This points to the probability that local hunting conditions must have been, also during an earlier period, ideal. The headland where the houses were situated was full of gneiss, intersected by many well-grown grass meadows. The place looked kind and smiling; and there was plenty of water, both in rivulets and lakes.

Three kilometres from the mainland there is a small, steep, and rather inaccessible island of gneiss, whose entire breadth is about 200 metres, and whose length is 500 metres. On this little island we found no less than ten houses. This strange choice of a place of habitation was probably due to the easy access which it provided to the open sea by Cape Russell and Cape Taney; besides which, the ice outside the island is probably a better place for the Utut-hunt.

We named the island Avortungiaq's Island, after Torngé's daughter, who was the first to discover the ruins.

On another little island nearer land, ruins and houses are also found. The ruins, which are the remains of an earlier Eskimo camp, in this comparatively small bay number about sixty. In addition to the camps here mentioned ruins were found by Cape Russell, Cape Wood, Dallas Bay, and in the bight of Advance Bay. On the stretch from Anoritoq to Cape Agassiz one can thus reckon with at least a hundred houses—a surprising number. Good ice-hunting must have taken place here during spring and autumn, and, in connection with the land-hunting, which must have been uncommonly good for a district like this, it has evidently tempted many people to settle here. The country from the coast inward seems a perfect oasis in this desert, for one must go right down to the south before one finds such a broad expanse of land.

With the exception of the houses on the gneiss headland

## GREENLAND BY THE POLAR SEA

by Torngé's home, all ruins of houses on this coast are remarkably small in size. The ruins at Cape Wood consisted of eight houses in a row, built of sand. The bank of earth encircling the house was quite plain and large, and small stones had been added to it; but everything seems to indicate that the builders must have had some difficulty in procuring material. Remains of turf walls were not to be found at all, neither was there any trace of vegetation; the country was absolutely barren, and no peat was discovered in the neighbourhood. The camp gave one the impression of having been an "experiment station." The conditions for hunting must have been excellent. By a big stone near the houses one yet saw soot from a cooking-fire. Wherever possible the ruins were measured, but a proper exploration was out of the question, as we passed them in the beginning of April in  $30^{\circ}$  (Cent.) of cold. Everything was covered by deep snow.

*April 18th.*—On the 18th of April we reached Dallas Bay, from which, near by Cape Kent, we drove out on Peabody Bay to cross over to Washington Land.

The first day's journey we made fifty-six kilometres, though for the first twenty kilometres we had to toil slowly through deep snow. In some places we drove across awkward floes of old ice, similar in character to the edge of the inland-ice. These floes have a rugged surface with deep holes, due to many summers of sunburn; they look like a high sea, and the heavy sledges bob up and down on them as ships on the waves.

*April 19th.*—When we arrived approximately in the middle of the bay, we built a camp of snow-huts, and here for the first time we had an excellent view of Humboldt's Glacier, the largest glacier in Greenland, so highly praised by Dr. Kane. Our expectations were tremendous because of his picturesque descriptions, which really do give the picture of an imagination overwhelmed by the great unknown. I will therefore quote this white man, the first who set eyes on this region.

"I will not attempt to improve on reality by a flowery description. Man can only improvise about Niagara or the



## FROM THULE TO HUMBOLDT'S GLACIER

ocean. My notes speak artlessly of the long ever-gleaming line of mountains, and of the dazzling plain of ice. The mountain-line raised itself like a massive, glass-like wall, 300 feet above the sea, with unknown, unfathomable deeps at its foot; and its arched surface, sixty miles long from Cape Agassiz to Cape Forbes, lost itself in unknown spaces, no more than a single day's train journey from the North Pole. The inland regions with which it was connected, and from which it issued, was an unknown *mer de glace*, an ocean of ice of, so far as one can see, limitless dimensions.

"In my inmost mind I had expected to meet with such a great glacier if ever I was happy enough to reach the north coast of Greenland; but now, when it lay before me, I could hardly grasp it. Here it lay, plastic, movable, a half-solid mass, crushing out life, swallowing cliffs and islands, and forcing its way with an irresistible movement down through a frozen sea."

Reality proved a great disappointment to us. The glacier certainly was mighty in extent, for it was about a hundred kilometres broad; but for one who is accustomed to travel under the extravagant glaciers of Melville Bay, which in a single sneeze throw gleaming ice-mountains out into the ocean, Humboldt's Glacier seems to be merely a good-natured attempt at a half-dead ice-stream—scarcely capable of reproduction. The edge of the glacier, which, almost without crevasses, slopes evenly as a high road out into Peabody Bay, is in most places of a height not exceeding fifty metres. In several places it runs smoothly down into the water, so that it is easily accessible from a boat. Our survey showed that the water for the greater part in Kane Basin is very low; and the little ice-mountains, which approximately have the character of pieces of Sikûssaq, are aground. A measurement of their height proved that Peabody Bay, as far out to sea as fifty-six kilometres, was no deeper than forty metres.

Advance Bay itself consists of a lot of small, low islets, and the coast from Cape Agassiz is cut up by many shallow bights,

## GREENLAND BY THE POLAR SEA

so that a comparatively small rise in the ground here by Kane Basin would reveal large stretches of land. It is only possible to understand the nature of Humboldt's Glacier rightly by looking upon it as a continuation of the quiet and fissure-free edge of the inland-ice which runs down on Inglefield Land. Thus it is not correct to characterize Humboldt's Glacier as a glacier, but only as an even edge of ice to which the sea reaches up.

The overwhelming impression made on Kane and his followers by this glacier must have been due to its extent. I fully admit that, looked upon as an ice-stream, it is imposing in its calm and quiet enormity, even if its kindly round back is quite different to what one would expect from the largest glacier in Greenland.



FORWARD AT AN EVEN TROT



THE LITTLE BEAR, SURROUNDED BY ALL THE DOGS



## CHAPTER III

### WASHINGTON LAND TO HALL LAND

#### WASHINGTON LAND TO HALL LAND

**E**SKIMO bear-hunters had often told me that on the other side of the "Great Glacier" I should find a country dissimilar to theirs. In many places the cliffs were whitish-grey, in other places their foot showed up black as coal; but only rarely did one find vegetation of any kind in the barren valleys.

Now and then hares would come jumping from the mountain plateaux, and it also happened that the dogs would suddenly scent big game, presumably musk-ox; but in spite of many expeditions inland, these had never been found. What was of most interest to us, however, was that the bear-hunters also spoke of many places along the great headlands where heavy currents met and opened up the ice very early in the year. Many bearded seals were to be found here, which would provide us with a welcome addition to our stores.

It was therefore in a state of great excitement that we approached this country which the Eskimos call Akia—*i.e.*, "the country on the other side of the Great Glacier," whilst the Americans have christened it "Washington Land."

*April 20th.*—Driving had been easy across the whole of Peabody Bay, so with a distance of 66 kilometres behind us we made camp by an ice-mountain off the cliffs of Cass Bay on the evening of the 20th of April, under a heavy snowfall and growing storm. The next morning we woke up to the same kind of weather, but, as we were all impatient to get northward, we had no time to consider this. Lauge Koch went on land near Cape Clay, whilst I rounded Cass Bay along the ice-foot to see

## GREENLAND BY THE POLAR SEA

if I could not come across winter-houses which might continue the chain of the surprisingly many we had passed at Inglefield Land. The result was a negative one, and we had to be contented with the finding of a number of meat-pits of the ordinary Eskimo type; a single tent-ring we also found, but it was a square one, and therefore would be one of the remains from Morton's and Hans Hendrik's voyage.

Late in the evening we came back to the tent-camp, with wind-bitten faces and stiff limbs, and soon discovered that something joyous must have happened. The camp was in a tumult. The Eskimos ran towards us with loud shouts, and now and then they would spring up in the air slapping their thighs—always a sign of happiness. As soon as we were within shouting distance, we were informed that Koch and Inukitsoq had shot a bear off Cape Clay, and the "Star" and Majaq had slain another two bears not far from the tent-camp. This news meant fresh and savoury meat in the pots for many a day ahead, and a change in diet from walrus to bear is always beneficial.

In addition to the successful bear-hunt, Koch had had a great geological success, as he had found rich stone-bearing strata on the stretch of coast which he had examined.

Nothing is more stimulating on a voyage than the success of a comrade, and as the results of the day had been rather poor so far as I was concerned, I decided to continue the journey towards Humboldt's Glacier on the next day whilst my comrades continued northward. At this early stage of the voyage we could not afford to let the whole of the expedition wait for me, wherefore I must try to make a double journey and overtake the others in the course of the next two days.

I knew there ought to be houses in the vicinity, as many hunters, through their parents, had heard tales of a camp north of Humboldt's Glacier; but nobody knew where it was situated, and the problem was to find the place. I therefore started my journey in along the coast early next day, while all the other sledges in a long row continued slowly northward. Koch wished to pay a supplementary call at Cape Clay, and

## WASHINGTON LAND TO HALL LAND

with Inukitsoq as our companion we started explorations in good spirits, having firmly decided not to give up. We progressed along the ice-foot, so that nothing could escape our attention. The passage here was often impossible and certain distances had to be driven on a most uncomfortable Sikûssaq ice, a sign that the bays here are hardly ever free of ice.

At last, 12 kilometres east of Cape Clay, some way into Benton's Bay, my toil was rewarded with success. The ice-foot in this place was very high and ridged, but a sudden impulse made me stop by one of the most inaccessible places, and I climbed upwards across neck-breaking ridges. My instinctive scent of houses was correct, for before me lay the camp for which I had searched in vain. It consisted of altogether six winter-houses, numerous tent-circles, and large, roomy meat-pits. The houses were built right on the beach on sand and pebbles. The material consisted entirely of stones, flat and oblong, and although some of them were not quite small, it was easy to see that it had been difficult to procure fitting material. A well-built house has an elaborate joining of walls and roof, but there was no sign at all of any such arrangements here. In spite of a thorough examination, I did not find any kind of vegetation in the vicinity. One of the houses was square, which is quite unusual in Eskimo architecture and must owe its form to consideration of the material. The others were of the usual beehive shape. We found only one remarkably large house, a so-called Quarajalik, consisting of two houses built together, but with a common entrance. Whale-ribs were also found built into the houses; they seemed to be inevitable in the architecture of this district.

The meat-pits were similar in form and size to those we had measured and sketched in Melville Bay; in some instances the stones had been put on edge—an uncommon method. Furthermore we found Qulisivit—stone hives wherein meat is dried. All this bore witness that the catch here had been a good one.

In addition to the ruins already mentioned I found ten tent-rings. Some of these were unusually large and built with

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comparatively high stone walls, so that they gave one the impression of having been a sort of structure between a house and a tent. It may be that lack of material has led to an invention peculiar to this locality.

I have mentioned the excellent conditions for seal-hunting which this neighbourhood offers; even for Eskimos with very primitive hunting gear it cannot have been difficult to procure their daily food. The catch must have been chiefly seal, and there may also have been, especially in spring and autumn, a good hunt of ice-bears in Peabody Bay, and of reindeer and musk-ox in Inglefield Land.

*April 23rd.*—I was glad that the energetic explorations during these latter days had given such good results; for the ruins found and measured by me pushed the record of Eskimo ruins to the north side of Humboldt's Glacier; and as my aim was to collect material for a contribution to a study of the Eskimos' wanderings north of Greenland, I considered the start made was a good one. The point was now to prove whether camps had existed further ahead along our route; and even if at the outset one might take it for granted, with some degree of certainty, that habitation must have been somewhat fitful all the way along this inhospitable coast, I had some reason to hope for decisive results in the great fjords between Cape Bryan and Cape Washington north of de Long Fjord.

Encouraged by our good luck, we set out at once to overtake our comrades and the pack-sledges which had already a day's start of us.

Near Cape Webster we met Uvdloriaq, previously a member of the first Thule Expedition. He was now engaged with a pack-sledge, and although he originally should have accompanied us right up to Cape Constitution, he had had to stop here, as severe and painful sciatica prevented him from navigating the sledge across the pressure-ice and on the, in some places, rather awkward ice-foot.

Round this steep red cape a fresh wind and a sweeping snow-spray is always blowing, and Uvdloriaq had been forced, in spite of his pains, to build himself a snow-hut against the



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mountain-side. Here we stopped, and as we found Koch busily collecting fossils a little way ahead, we took the opportunity to make ourselves a cup of cocoa to celebrate as cheerfully as possible the parting with our old comrade.

The whole coast of Washington Land had, like Inglefield Land, a broad ice-foot where driving was easy; we first mounted this at Cape Webster, as the sea-ice up to that point had been good. After an hour's rest we continued the journey, but unfortunately we did not succeed in overtaking our comrades on that day, for when we came to Morris Bay we had covered a distance of 90 kilometres; we ourselves were sleepy, and it is always unwise to overstrain the dogs at the start.

The coast mountains, reaching a height of from 200 to 300 metres, were everywhere rich in fossils and often of unusual beauty. The reaches from Cape Webster to Wright Bay especially impressed us. Here we found limestone mountains of phantastic formation, with grey, cold colours at their foot, and near the summit glowing red shades finely attuned. The formations themselves with their massive contours led one's thoughts back to the burghs of the Middle Ages, where the wide gateways were not the least imposing feature of this natural architecture. Near Cape Callhoun the country changed character. The steep mountain-sides, which gave an impression of sky-scrapers—because we on the ice-foot drove right underneath them—were relieved by low country sloping evenly and picturesquely upwards; simultaneously the ice-foot turned into a broad and snowless *chaussée* which made the dogs go for dear life.

We looked in vain for game. Sometimes the dogs got the scent, so that any moment we expected to see the black fluttering coat of a musk-ox in one of the broad-bottomed cloughs. But nothing living could we discover.

We made camp hurriedly and after six hours' rest we continued, to overtake our comrades at last near Cape Jefferson; they had camped right off a coral reef which, in this landscape, had a paradoxical effect.

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The reunion was a merry one. They had shot a small bear, which was already half eaten when we arrived ; and, in spite of its shyness, a small hare also had had to lay down its life for Torngé's sure aim. The antlers of a reindeer which were found a short distance inland we looked at with interest.

After a short rest, during which we were given our part of the tender bear-flesh, we drove on and reached in the morning Cape Constitution, having passed a lot of pressure-ice in Lafayette Bay.

*April 24th.*—In Lafayette Bay the dogs had repeatedly got the scent, and after some minutes of hot pursuit we had as a rule met with fresh tracks. But as it was difficult to follow the trails across the awkward pressure-ridges, where the sledges frequently toppled over among the uneven ice-blocks, we had had to give up the hunt. But the dogs' keenness was now aroused, and although the journeys of the last few days had been very long, and the load on the sledges weighed at least 500 kilograms, the speed increased during the night. In the neighbourhood of the big Crozier Island the dogs forgot all their weariness and galloped along towards Cape Constitution.

During the monotonous everyday drive the dogs are always hypnotized forward by the will of the driver ; herein lies all the art of dog-driving. But if something unusual happens and the dogs stand trembling against the wind with quivering nostrils, then it is often the animal which influences the man. Thus it was to-day ; even we were smitten with the contagious hunting fever.

Hardly had we pulled in under the grey mountain-sides when off they rushed with us. Three times fresh bear-tracks pointed forward, and the dogs, who had been cheated several times during the day, now seemed firmly decided to overtake the bear so that the journey might end with a meal of fresh meat.

The wind had blown away the snow along the mountain-sides, and the sledges shot across little blocks of pressure-ice with such speed that I often feared that the runners would break. In a bay between Cape Constitution and Cape Independence I made a halt by an ice-mountain, well adapted

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for a camping-ground. The dogs were very disappointed because the hunt had been interrupted, and gave vent to their impatience with a loud yelping which made the echoes vibrate between the steep mountains of the bay.

A little way behind me the other sledges came on, and as soon as they discovered that I was on the point of unloading, they gave their dogs the bear-signal and came rushing towards me at a desperate speed. We spread out over the ice in different directions, but even here it was difficult to follow the tracks because the snow had drifted so firmly together that no marks were left after the bears' paws. After four hours' tracking we had to give up the hunt, and one by one the sledges returned to the camp, slowly and hesitatingly, with disappointed drivers and disgusted dogs.

But up above from the highest summit of Cape Constitution a falcon sailed down to meet us; proud and silent, it swept towards us with pointed wings restfully spread out, to bid us welcome to its royal hunting-grounds. But as it reached our camp and set its little cold eyes on our loads which, in our eagerness for the hunt, we had thrown about in wild disorder, we heard a screech which quickly turned into derisive laughter.

It saw in an instant that this was not a meeting with competitors, and to show its contempt it beat out in a quick circle across the ice where the bears had escaped.

We all stood near our sledges, looking after it with poorly disguised envy; for we knew that the falcon would, with the same shrill laughter, in the course of a few minutes glide above the big game which in vain we had tracked all through the day.

## WE WRITE TO DENMARK

*April 25th.*—For the last time we made a large camp. Five pack-sledges must now return, so that only two men remained to accompany us to Hall's Grave.

But before the sledges left us, we were to write our last letters home; for one of the musk-ox hunters we met at Anoritok, and who lived right down by Cape Seddon in the

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southern part of Melville Bay, had promised to wait for our mail. From Cape Seddon they would be brought by one of the whalers by the end of May to the district of Upernivik, from whence they would reach Denmark some time during the course of the summer.

Our camp was bitterly cold and there was a strong wind, but nevertheless we worked busily at our reports; the already considerable collection of fossils was suitably packed for being sent southward.

In the afternoon everything was ready, and the pack-sledges at once started on the homeward journey so that they might not unnecessarily waste our provisions and the food for our dogs. Their departure was quick and without ceremony, as is the custom amongst hunters; but we knew that their thoughts would often dwell on our fate, for they are all men whose lives have been spent on long journeys, and they know by experience how quickly evil and good interchange in the life of a hunter.

They are: The great Torngé, who, after an unsuccessful journey towards the North Pole, has fought for life through a long winter by the big Lake Hazen in Grant Land; the handsome Pauluna, who has shared in the adventurous winterings by Cape Sheridan; and finally Majaq, the courageous hunter who played the part of the northernmost provision dealer in the world at Renslaer Harbour.

When we took leave of these men something happened which moved me deeply. Besides those mentioned as returning, young Inukitsoq was also present; he had his baptism of fire during the first Thule Expedition, and together with Uvdloriaq he is well known to those who have read my travelling diary of 1912. Once during serious difficulties we promised each other that we would never undertake such a journey again. Inukitsoq kept his word, I broke mine. We remembered this incident during all the fun of leave-taking, which the Eskimos appreciate so highly, and he became suddenly very serious and went up to his team of dogs, which is renowned throughout the tribe as the strongest and most

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enduring. Without a word he unharnessed three of his strongest and best dogs and brought them to me with the proposal that I should exchange for them the three poorest ones of my team. Only the man who knows the value of sledgedogs will be able to appreciate this friendly act.

In the afternoon, immediately after the pack-sledges had left, we made ready to break camp, and drove off in the cool sunlit night northward along Brown's coast. We constantly came across bear-tracks, but having gained experience through our many unsuccessful attempts, we decided not to put an extra strain on the dogs; keenness for the hunt wears them down, especially when the result is a negative one.

Some way out on Kennedy Channel we met with a high, difficult pressure-ridge, through which we had to hew our way with axes. It represents several years of Polar-ice which has drifted into the channel and been ground together by current and wind. For long stretches we passed the ill-famed Sikússaq, which is so dangerous for heavy-laden sledges. And right enough, one of our sledges was driven to pieces. When we had tied it together with straps we decided to break through towards land; we succeeded, and here, to our great joy, we found good and easy new ice.

*April 26th.*—Thanks to this circumstance, we reached the south-west side of Cape Bryan, where we made camp at ten o'clock in the morning during the beginning of a snow-storm. The distance covered during the day's journey of fourteen hours was 66 kilometres, in spite of considerable delays caused by the pressure-ice. All through the night we had a view of the steep coast mountains on Grinnell's Land, which with their glacier-swathed peaks looked like spirit forms against the banal pressure-ice of Kennedy Channel.

Thanks to the snowstorm, we had our first long and unstinted sleep since the departure from Etah. The violent gusts which occasionally swept down from the 300 metres high mountains occasionally threatened to tear down the tent above our heads; but the thin canvas bravely resisted the attack of the

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storm, and we were warm and comfortable in our sleeping-bags and relished doubly the sweetness of rest which is the reward only of honest toil.

*April 27th.*—A little after midnight we woke up and pulled ourselves together sufficiently to make a refreshing cup of cocoa; then, as the storm persisted in sweeping across the tents and seemed to be still on the increase, we let sleep have its will with us and slept sweetly until dawn. We then broke camp and continued. Taught by yesterday's experience, we kept closely to land, occasionally driving upon the ice-foot wherever this was possible. Thus driving was fairly easy along our route, whilst out in the channel the pressure-ice was even worse than on the previous day.

Off Cape Bryan we got quite clear of the pressure-ice and made good speed on the almost snowless ice which seemed to have settled late in the autumn. Off Hannah Island we found the carcase of a seal, half-eaten by a bear.

We passed Bessel Fjord in a fresh breeze, and the peculiar indentation, surrounded on all sides by steep mountains intersected by hanging tongues of ice, looked eerie and desolate. We halted by Cape Morton, and as the storm was still on the increase, we succumbed to a momentary laziness and made camp, although we really meant to cross Petermann Fjord on this day.

*April 28th.*—However, later in the day we found that our laziness was merely a proof that we had eyes in the back of our head as well. This is how it happened:

As soon as the dogs were fed, and the tent stayed so as to be able to withstand the storm, Koch and I decided to take Inukitsoq and set out on a small excursion to the bay in our immediate vicinity. Surrounded by high mountains, the head of the bay looked very inviting with a high terrace-like beach stretching like an amphitheatre up towards a broad, dead glacier.

Here Koch and Inukitsoq found an old depot from Nares' 1875-76 Expedition a little way above the beach. It consisted of six boxes, each containing four 9-pound tins of Australian

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mutton, fresh and delicious as if it had been left only the previous day. Next to the boxes we found a broken barrel marked :

ARCTIC SERVICE.

H.M.S. "DISCOVERY."

SUGAR.

Unfortunately a sweet-toothed bear had been here before us, and this was all the more annoying as sugar happened to be the article which we all coveted. So we had to content ourselves with unusually well-preserved boiled beef. The tins were marked : "Meat Preserving Co., Ltd. Agents, Wother-spoon and Co. Works, Winton Southland, N.Z."

For a long time we were thus able to live grandly on food originally meant for Arctic colleagues who had travelled here before any of us were born. Our thanks to the brave Englishmen who left it here ; our compliments to the excellent firm which prepared this durable article !

Besides the mutton we found a large tin containing 20 kilograms of tallow, which was the dogs' share in this unexpected meal.

*April 29th.*—We had to stay here for yet another day because of the violent storm. Although the snow seemed firm and the ice in many places lay bare and shiny, now and then there was such a thick drift that the high mountains on the other side of Petermann Fjord disappeared. At length, towards evening, the wind calmed down so that we could break up and cross the fjord.

This fjord looked quaint and foreign in its surroundings. Everywhere the mountains along the coast fall steeply down towards the ice, and the dark-brownish tones showed gloomy and serious against the even, white inland-ice which appears everywhere as a bank of white fog behind the coastland. In several places along the fjord, tongues of the glacier shoot down between the mountains, but at no point here is the production of ice-mountains apparent. On the whole, it seems that the ice up here on the northernmost latitudes differs from the ice further southward, in that in no place does one find real

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ice-mountains. Even the blocks which now and then calve off from Humboldt's Glacier look like huge pieces of Polar-ice. In some places these are rather large, but never did we see them of such a height that they might be called icebergs, such as we know from the glaciers near Inglefield Gulf, Wolstenholme Sound, and Melville Bay.

After a few hours' driving it was manifest that we had been right in waiting whilst the storm was on, for even now, after the snow had ceased to drift, the wind blew so hard from the fjord that we had difficulty in standing when the *Föhn*-like squalls whirled around us. The sky was uncannily beautiful, with big balloon-like clouds drifting along under the pressure of a hurricane. The ice seemed to have lain immovable here, as it consisted entirely of uneven Sikûssaq. Frequently we were blown out into great basins formed during the ice-melting of the summer, big lakes up to 1 kilometre long covered with fresh-water ice, shiny as a mirror where neither men nor dogs could find a footing. Powerless to resist, we were flung away and slid along limply towards the opposite shore with the sledge in front and the miserably whining dogs behind us. Here we had to keep all our wits about us in order to prevent the sledge-runners being broken. But it would have been hopeless to attempt to make camp here, and in spite of everything we had to let matters take their course, for in no place could we find shelter for a tent; and the complete absence of snow on the ice seemed to indicate that in this neighbourhood storms were the order of the day. After twelve hours' tussle with wind and slippery ice, we at last reached Offley Island.

*April 30th.*—In the shelter of the small but high and steep island the tent was erected, and after that we attempted a musk-ox hunt. This tract consisted of dark limestone; it was quite barren and gloomy. The storm whipped across it with such violence that it was often quite impossible to go against the wind. In spite of all our efforts the long chase had no result. We found no track of game and the country was almost void of vegetation.



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During the night we continued northward under the same difficult travelling conditions, being swept along the shiny ice by the wind. Not until we were about six miles from Hall's Thank God Harbour did we reach a quiet zone with sufficient snow; then the dogs, joyous in the sensation that they could once more stand firmly, set off at a sharp run so that early in the morning we were by Hall's Grave, where we camped.

On this last part of our journey we saw several breathing-holes of seals, but although we might have hunted near these holes with some success, we were, thanks to the many tins of savoury mutton which Nares' Expedition so kindly had left us at Cape Lucie Marie, more interested in our progress than in the procuring of fresh meat.

The sea-ice between Offley Island and Hall's Grave was young autumn ice, a broad belt stretching from the coast and outward. It would seem that everywhere here, probably during the month of August, the sea opens up along the land. But one need not go far out into the basin before one finds floes of several years' old Polar-ice, which is just as uninviting for sledges as it is for ships. I do not think it would be a mistake to lay down the rule that the ice right from the northern part of Smith Sound, Kane Basin, Kennedy Channel, Hall Basin, and Robeson Channel works loose during the short period of transition in August and September, when sudden autumn storms fight with the short Arctic summer. This is proved not merely by the ice we had an opportunity to observe everywhere, but also by the experiences of all previous expeditions. But a real open Polar Sea is quite out of the question, for even that part of the Polar Sea which under the name of Lincoln Sea washes round Grant Land and the north coast of Greenland, has almost the same appearance summer and winter. In certain places basins of open water are found, but they are never very extensive and always owe their existence to some local cause or other. In the same way broad or narrow fissures in the Polar pack-ice are formed, but these also are quite local and temporary.

It happens every summer that the pack-ice which is forced

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in from the great Polar Sea through the relatively narrow channels which lead to Baffin Bay, beats down all resistance and tries to find air towards south-south-west. As soon as this enormous mass of ice starts moving—partly owing to the open water off the coast, partly aided by the current—commences towards Baffin Bay that drift of ice from the north which for periods creates comparatively open water. But it is only open water in a certain sense, as on all horizons one sees masses of huge drifting floes.

These are the facts of the open Polar Sea, which right up to this year has tempted Polar expeditions. As a rule sailing is out of the question—one merely drifts with the ice in the direction of the current.

These theories tempted the first North Pole pioneers to push ahead as far as possible northwards along the lands, and it was for this reason that they chose winter camps so far north; they thus succeeded at a comparatively early period in giving us some idea of the nature of the country and the life of its creatures, whilst at the same time they charted the coasts.

### HALL'S GRAVE

*May 1st.*—We arrived at Hall's Grave on a beautiful and sunny spring day and camped on the ice-foot. We had for a long time been anxious to see this place of which we had read so much, and where a large Polar expedition had fought through the dark period of the years 1871-72.

As soon as the dogs were tethered at a sufficient distance from the sledges we ran up the steep clay bank which led to a plateau.

The lines of the landscape were beautiful. A plain-like sweep of several kilometres lay like a carpet in front of the high mountains which comprise the inner region of Polaris Promontory. The plain led eastward round the peninsula down to Newman Bay and, being covered with snow, appeared to provide easy driving.

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But how barren and desolate was all the country one could survey from this point! In no place could one find the slightest sign of vegetation; everything was sand and pebbles, monotonous and bleak. We had been hoping for a hunt before we parted with the last two pack-sledges, but this hope seemed to be sheer vanity.

A short distance from the clay bank we found Hall's Grave, easily distinguished at a distance by the copper plate between two wooden pillars which Nares' Expedition had erected in front of it, this great Polar expedition which visited the same regions four years after Hall's death. The inscription on the plate is as follows:

SACRED TO THE MEMORY OF  
CAPTAIN C. F. HALL,  
OF THE U.S. SHIP "POLARIS,"  
WHO SACRIFICED HIS LIFE IN  
THE ADVANCEMENT OF SCIENCE  
ON NOVBR. 8TH, 1871.  
THIS TABLET HAS BEEN ERECTED  
BY THE BRITISH POLAR EXPEDITION  
OF 1875,  
WHO FOLLOWING IN HIS FOOTSTEPS  
HAVE PROFITED BY HIS  
EXPERIENCE.

A bear had paid a visit to the grave a short time previously and tried to destroy the monument; some of the wood was splintered, but the stout pillars which supported the plate had resisted the attack. The marks of the animal's teeth were plain.

A short distance away we found two more graves. The inscription on one of them had been made on a wooden plate and was now illegible; but on the other it is scratched on to a flat limestone, which, however, has been broken by a bear. One can merely decipher the word *Discovery*, but this is sufficient to show that it is one of Beaumont's men who sleeps his last sleep here.

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Our minds were impressed by the atmosphere of this little Arctic cemetery; for the men whose earthly remains rest in this place lost their lives in an attempt to reach the places which are now our goal.

Some distance from the grave we found remainders of a small wooden hut which had probably served as a scientific station on land; also some wood, a couple of zoological scrapers, and a large rusty stove—a bizarre-looking piece of wreckage on this coast. By the side of this stove we found some huge, unwieldy cooking utensils, pots and kettles which, weighing from 5 to 10 kilograms each and being of iron, must have formed rather unpleasant loads for a dog-sledge.

Our Eskimos, whose senses are always doubly keen during an examination of old, previously inhabited camps, found under a stone mound two large tins of coffee which proved excellent. A mouthful of port wine in a bottle had also preserved its bouquet in spite of fifty years of frosty nights near the Pole. It was, of course, drunk in a mood of devotion, although each man's share was no larger than just to wet the tip of the tongue.

We further discovered some lead and some large pellets suitable for the hunting of hares, which our pack-sledges appropriated with delight.

We had, however, to turn our thoughts towards hunting, and as soon as the neighbourhood had been examined we set out in two parties, one making with sledges and dogs in the direction across the plain towards Newman Bay; here we hoped to meet musk-ox, for Hall's Expedition had shot no less than twenty-six animals in this vicinity. A find amongst the ruins of the houses on the bank, furthermore, encouraged us; for in a hollow in the ground which had been dug out for a sleeping-place, we found three musk-ox skins which did not appear to be very old. Sipsu's opinion was that they were put there about 1900 during one of Peary's stays at Fort Conger. By way of a broad valley which stretched itself inward through the Polaris Peninsula itself, the second party went to hunt hares.

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### WE TAKE LEAVE OF OUR LAST PACK-SLEDGES

There was a feeling of summer in the air when we paid our visit to Hall's Grave, for quiet, mild weather and warm sun greeted us pleasantly after the three days of storm by Petermann Fjord.

The sun, which shone night and day, was most agreeable in the cool night with its softer light. As we were not troubled by the cold we could give ourselves whole-heartedly to the business consequent on this being our last day of companionship with Sipsu and Inukitsoq. They had to leave us here and hunt their way homeward via Grant Land, so for the last time we were able to send a greeting home, with a message as to how we had fared hitherto.

I have already mentioned that Sipsu was not new to this territory. He was an experienced traveller who had often followed Peary on his Polar Expeditions and knew Grant Land well; as a hunter he made certain and safe dispositions—a calm man when luck turned against him and intrepid in a dangerous situation. He was helpful, always good-tempered, being merely enlivened by the risk attendant on a long journey where success in hunting constitutes the thin thread by which life hangs.

His companion Inukitsoq had really only accompanied us because he was Ajako's brother. He was a good-natured fellow, in no way remarkable, but in the company of Sipsu he could always be used with advantage for driving those loads which a pack-sledge had to carry.

These two men were to take with them southward the geological collections we had gathered from Cape Constitution to Polaris Promontory. As we could not spare them any provisions, they were to take the road across Fort Conger, Greely's famous winter quarters, where musk-ox was always to be found.

We ourselves had reckoned on the possibility of having to cut across Hall Basin in order to get our provisions in Grant Land before we lay a course north to the unknown and

## GREENLAND BY THE POLAR SEA

doubtful hunting-grounds. But as for the time being we had sufficient dog food, this was not now necessary.

We did not expect to find the same good ice as that on which we had driven along the coast in Hall Basin, where the great land between Robeson Channel and Sherard Osborne Fjord acts as a buffer against the enormous pressure of the Polar Sea. Not a single ice-ridge was found on the ice-foot, which in certain places was quite broad and easy to drive on, though in other places it was too narrow for the passage of sledges.

Towards evening the different hunting parties returned; Inukitsoq and Hendrik had been almost to Newman Bay, but had seen nothing alive—they had not even come across an old track.

Ajako and Bosun had been inland on the Peninsula and had killed two hares.

For the last time we made our camp with three tents and feasted modestly on the hares. The fine weather continued so that we rarely stayed in the tents; it was far better to be outside.

We paid a visit to two beacons in the mountains near by, but could not find any records. By one of them, however, we found a big flat stone with the inscription :

A. A. ODELL. 1872. R. W. C.

Odell was one of the engineers of the *Polaris*.

The neighbourhood was beautiful, though its history turned our mood to one of seriousness. For we were camping near a cemetery, and the men whom fate had broken here were young and capable; but they had met difficulty and toil stronger than their own strong constitutions.

Opposite to us the *Discovery* wintered during 1875-76, and the *Alert* farther northward the same year. Both ships had sacrificed brave and intrepid members of their crew for the exploration of this land. Finally, the Greely Expedition had wintered in Lady Franklin Bay—an expedition which gave

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rise to the greatest tragedy which has ever been played in these regions.

The ground on which we stand is dearly paid for; its exploration has cost the life of many a brave young man of iron will. But for each one who fell there were others who offered to take his place; thus our knowledge of the northernmost regions of the earth moves farther and farther North.

North! North!

From our tent-camp in towards Cape Tyson the land stretches itself in soft, even lines. This landscape, which is merely a desert of stone and sand, has the contours of a gentle sea swell.

At Cape Tyson the panorama changes in character. Wild mountains lie inward toward the inland-ice by the bight of Petermann Fjord, darkly edging its blue, glistening ice. Against this background big rolling clouds drive out from the fjord where the air never seems to be at peace; and while we are lying far outside the mouth of the fjord in golden spring, the colours of the storm above the cliffs change in threatening hues.

Much more fertile looks Grant Land, this no less historic place, separated from us merely by the narrow Robeson Channel. Here, again, the mountains are grandly and phantastically formed, whilst the even land sweeps away in all directions.

Westward, through broad cloughs, we catch a glimpse of the valleys where hundreds of musk-ox graze on the banks of broad rivers, and where thousands of hares tumble like a ravine of snow down to the plains, curious and over-eaten, white, woolly hordes, often of such enormous size that it seems as if the earth itself were alive.

And all this huge, white landscape somehow seems to gather round the tall Ballot Island, which in the mouth of Lady Franklin Bay lifts its head like a sky-scraping monument over man's fight for the North Pole. A memorial here by the very threshold where the word is always:

North, North, farther North!

## CHAPTER IV

### CAPE SUMNER TO DRAGON POINT

#### CAPE SUMNER TO DRAGON POINT

MAY 2ND.—We started at ten o'clock. We expected bad driving, and we got it. According to its position, the Polaris Peninsula lies like a wedge in the midst of a strong drift of ice-floes which, under the pressure of all Lincoln Sea, break their way past the large capes to be ground in through the narrow Robeson Channel. By midnight we had nearly reached Cape Sumner and made camp utterly worn out. The dogs also were worn out by the pressure-ice, and as soon as the signal to stop was given they laid down almost on top of each other, never stirring all through the night from the spot where they had flopped.

The quality of the ice showed that there had been open water along the coast until late in the autumn. From Hall's Grave to Cape Lupton we therefore had excellent going, but here the character of the ice changed, and, as it was not always possible for us to follow the belt of the tidal water, we often met pressure-ridges which towered up in front of us to a height of 10 to 15 metres. It was quite impossible to drive across these huge blocks, which lay piled together as if thrown there by a giant's hand. For hours we had to stop in order to make a road for the sledges with our ice-picks.

In some places the ice was pressed up towards land, lying like an exquisite diadem round the ice-foot, gleaming in beautiful colours when the rays of the sun caught the many broken crystals.

While the country south-east of Hall's Grave is low with occasional rounded hills, the north coast stands like a steep wall of cliffs with a beautiful design in brown and grey on its



## CAPE SUMNER TO DRAGON POINT

enormous flanks. A snow-shower had just swept the awl-pointed peaks standing in white and brilliant contrast to the dark bands lower down.

There was a storm from south-east, and the gusts of wind swept down from the mountains with such force that it was impossible to stand upright under their attacks. We pitched the tents with great difficulty, and as soon as we had strengthened ourselves with some food, little Hendrik and I walked along the ice-foot to Newman Bay to reconnoitre. We crawled up on the ice-foot and crept slowly forward against the storm. What we saw was not very encouraging; on the morrow we should once more have to hew our way towards the bay where the ice seemed more even. We climbed the mountains to get a view of the places where travelling might be easiest; then we returned to our comrades. On one crossing of the mountain we were overwhelmed by weariness and the pain of our wind-lashed faces, so we sought shelter behind a hummock of ice.

Whilst we tried in vain to doze, our thoughts reverted again and again to Markham's journey across this very Polar-ice, through the frozen spray of which we were now about to force our way.

I have mentioned before in how slight a degree we were impressed by the natural phenomena which so often had rendered our predecessors speechless. But here, where for the first time in my life I looked across the mighty ocean of the Pole, I had no words to express the feeling with which this living though ice-bound sea overwhelmed me. The infinitely distant horizon, where on all sides one sees only endless white ice-steppes, lying there without the evenness of the plain and full of unrest, is like an Epos of nature which renders one dumb.

And whilst the wind raged round us and the steep mountains of Cape Summer stood threatening above our heads, the surroundings forced me to go through again in imagination all the sufferings which the stubborn Englishmen from Nares' Expedition had undergone.

## GREENLAND BY THE POLAR SEA

Right opposite to me was the north-east coast of Grant Land and, as a blue line in the horizon, the faint contours of Floeberg Beach, the *Alert's* winter harbour.

Nares' Expedition of 1875-76 was made at the expense of the British State during the reign of Queen Victoria, and was equipped with everything which at that time was considered necessary for Polar exploration. Expense had on no point been considered.

The expedition left Portsmouth on the 29th of May and arrived at Disko with three imposing ships; from this harbour one of the ships, the *Valorous*, was returned, so that Nares had now command of two big, strong ships, the *Alert* and the *Discovery*. The plan was that one of the ships should go no further than N. Lat. 82°, where it was to take up its winter quarters. The other ship was to push on as far north as possible.

The goal of the expedition was the North Pole, and, as soon as it had passed Cape York, it worked its way systematically northward, leaving in all suitable places depots to be used in case of shipwreck. Simultaneously beacons were built where information was laid down for eventual search expeditions. It was one of these depots which we found at Cape Morton, as previously described.

According to plan, the *Discovery* took up its winter quarters in Lady Franklin Bay, whilst the *Alert* made its way up to the north point of Grant Land, which it reached on the 25th of August. The winter was spent on Floeberg Beach.

In the beginning of April, 1876, all the long sledge journeys started, which, due east, seaward due north, and due west, were to accomplish the task of the expedition. I will mention here only Markham's voyage.

Markham's task was to push northward as far as possible, preferably to the North Pole itself. He started with a train of nineteen men with sledges whereon provisions and baggage were distributed in such a way that each man would have a load of 230 pounds. Besides the sledges they also brought two boats much too heavy and unwieldy for such a long sledge

## CAPE SUMNER TO DRAGON POINT

journey. Very soon after the expedition left land, they had to leave the first boat behind.

Daily these men fought a terrible fight against both the cold and the natural obstacles in their path, and it was not long before they began to suffer from frost-bite. They faced this misfortune bravely. But when the dreaded scurvy\* made its appearance, the expedition was on the point of breaking down altogether. On the 19th of April it became evident that three of the men had contracted this dreaded and terrible complaint. On the 24th, N. Lat.  $83^{\circ}$  was passed, and then no less than five men were ill and unable to do any work. On the 7th of May the position was already such that three men had to ride with the baggage, while two of the patients were yet able to manage for themselves, although they were hardly able to walk. On the 10th of May it was obvious to Markham that it was hopeless to continue, and, while the patients were given two days' rest, he himself and the strongest of the men set out on an excursion to N. Lat.  $83^{\circ} 26'$ , the farthest north ever reached—a record which was destined to remain unbeaten for many years.

On the commencement of the return journey five men had to drive, whilst a further five were only enabled to keep up with their comrades because the drivers must cover the distance three times in succession to bring up all the baggage.

\* J. Lindhardt, M.D., Professor at the University of Copenhagen, and member of the Danish Expedition of 1906-08, has kindly supplied me with the following information: "Scurvy (scorbut) is an illness due to an improper dietary, the cause of which is now attributed to the lack of vitamin<sup>es</sup> in the food. These vitamin<sup>es</sup> are to be found in fresh meat, and, more especially, in vegetables, but they are destroyed by unsuitable preservation. Thus they are not to be found in the salt meat which previously constituted the chief food of Arctic expeditions. The illness manifests itself by tiredness and weakness, often accompanied by pains similar to rheumatism, hæmorrhage under the skin, sores on the legs, often also on internal organs, and a peculiar affection of the mouth with swollen, tender, and delicate gums which give rise to hæmorrhage and wounds and, occasionally, a loosening of the teeth. The treatment of the illness is hygienic-dietetic (fresh vegetables). In severe cases death follows general exhaustion or is caused by complications, especially affections of the lungs."

## GREENLAND BY THE POLAR SEA

When they approached land, still another three men fell ill, and as there were now only two officers and two men left, they decided at length to leave the second boat, which they had dragged along fearing that they might meet open water.

On the 5th of June they reached land, and after two days of rest Lieutenant Parr had sufficient strength to cover the distance to the ship on foot. A relief party was promptly sent out, and all the men were brought on board, but several of them were already so ill that, in spite of all efforts, they died after having reached harbour. The men who left the ship were fine fellows—they had been picked from a large crew; but of what avail is youth and strength when the constitution is undermined by scurvy?

This is briefly the tale of the first journey across the Polar-ice, which now lies before us. The story the ice axes hewed out here was just as gloomy as, in consequence of its surroundings, it must necessarily be. It was a fine and noble record, and Markham has for all eternity carved his name on the scroll of the foremost in Polar exploration; but hard was the journey and dearly were the results paid for, for this great cold Polar Sea claims a sacrifice from every man who tries to unveil its secrets.

Hendrik and I got up stiff with cold, but were blown homeward and soon got warm. Often we were flung along the ice against pressure-ridges which did not receive us kindly; and it was with genuine joy that we arrived, bruised and stiff, at the camp of our sleeping comrades at four o'clock in the morning.

This was a cold and inhospitable coast!

*May 3rd.*—We had pitched our tents between the big pressure-ridges close to the ice-foot, attempting to find shelter from the storm.

The landscape would have been gloomy had it not been for the warm sun, which gave life and colour to everything: even the precipitous mountains behind us changed in warm tinges.

We hoped that we should wake up in quieter weather, as

## CAPE SUMNER TO DRAGON POINT

the gusts of wind made progress so difficult on the shiny ice between the big ridges. During a storm one is unmercifully flung down, and the dogs, which had worn down their claws during the last days of fighting for a foothold on the shiny ice, were swept together in bunches which were flung against the sledges; here they lay until a lull in the heavy squalls gave them a chance to push ahead for another short distance.

We had the same weather to-day as yesterday, and we pressed on to get out of this awkward neighbourhood; in the course of the day we reached the strongly folded ground of Cape Sumner, from which point driving was easier, resting us whilst we passed Newman Bay.

I discovered no young ice in the bay; everywhere was several years old Polar-ice, hilly and rough, slippery and bare of snow, but nevertheless fairly easy to cross, as it was not necessary for us to use our axes. In the afternoon we camped near Cape Brevoort, a high limestone mountain standing as a counterpart to Cape Sumner.

These monumental coast mountains are worthy memorials of the two American senators whom Hall wished to honour by this christening. From their summits one has a view not merely over the Polar Sea and the north coast of Grant Land, but also far inland across the country behind Newman Bay, where the land at an even gradient trends inward, ending in a great tableland near the inland-ice.

The success with which Hall's people met on their various hunting expeditions in this neighbourhood tempted us to try our fortune once more. The musk-oxen had had a close season of many years' duration, ever since the days of 1871, so two men were now sent out. Ajako and Bosun walked for ten hours across the stony land, and then returned tired and footsore to the tent, late in the evening, without having seen any sign of game.

*May 4th.*—One day succeeds the other in great monotony during this period; all our attempts to find game for ourselves and the dogs are unsuccessful, but we have yet sufficient stores to continue the journey on full rations.

## GREENLAND BY THE POLAR SEA

The fight for progress through the Polar pack-ice was monotonous and strenuous. Hour after hour was spent in the same way. Sometimes the axe had to break the ice-blocks; sometimes we had to lift the sledges when they toppled over; and the whole time we had to force the dogs forward with iron-fisted discipline, through sharp and slippery blocks of ice where it was difficult to find so good a foothold that the sledges could be pressed through the difficult passages without delays.

At all the great capes the same pressure-ice was piled across the ice-foot as an obstructing wall, through which we could not hope to pass. We therefore had to work our way either along the belt of tidal water on the shiny ice, or, where this was impossible, along those rare places where a belated lane from January and February had stretched an arm of young ice towards land. But we tried as far as possible not to get too far out to sea, as these new lanes often end in a cul-de-sac and force one into a wilderness of pressure-ice.

During the forenoon we passed Gap Valley, where Beaumont and his men pulled their heavy sledges up across land when they found the route forward blocked by open water near Cape Brevoort. As the name implies, the valley here forms a broad gap between two steep mountains, a stony valley full of cloughs which goes in towards the great lowland near Newman Bay. We who have our dogs to help us bow down in deep respect to those sick and exhausted men who themselves had to pull their heavy, iron-mounted sledges up across the trackless terrain with its many large stones which lay bare of snow. Maybe those old pioneers were unpractical as regards their equipment, but what stubbornness and pride they must have possessed, these enduring and hereulean mariners who were the first beasts of burden for the Polar travellers!

Near Repulse Harbour we succeeded in climbing on to an ice-foot along which driving was possible, although the gigantic Sikûssaq ridges in some places towered up and formed banks from 10 to 30 metres high. These phenomena testify to the fights which every year are fought out between the



CAPE CONSTEUTION

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... 18<sup>th</sup> Reached  
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... about 4<sup>th</sup> May. Then  
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... very heavy & the return  
... This is my 16<sup>th</sup> march  
... 9<sup>th</sup> from  
... Yesterday  
... Black Horn Cliffs  
... ever



## CAPE SUMNER TO DRAGON POINT

creaking, current-harassed ice-ocean and the mountain-sides, the outposts of the lands. Inukitsoq, who during one of Peary's Polar Expeditions wintered on the north coast of Grant Land, remembers that he has seen rifts and holes with open water far into the winter. It appears that the ice here between Greenland and Grant Land is seldom firm and dependable until February or March.

Near Repulse Harbour we passed a beacon as tall as a man, where, in an empty brandy-bottle, we found the following record from Peary :

*" June 8th, 1900.*

" Am passing here on my way to Ft. Conger. I left Etah March 4th and Conger April 15th. Reached Lockwood's farthest May 8th ; the northern extremity of the Greenland archipelago on May 13th ; a point on the sea-ice north of that N. Lat.  $83^{\circ} 50'$  May 16th ; and a point down the east coast about North Lat.  $83^{\circ}$  May 21st. There followed over a week of fog, wind and snow, this made the travelling very heavy and the return slow. This is my 16th march from my farthest and 9th from Lockwood's farthest. Yesterday passed Black Horn Cliffs with much difficulty over loose ice. There is open water now off this point and a lane of open water this side of C. Brevoort extending clear across the channel. Have with me my man Matthew Henson, one Eskimo, 16 dogs and 2 sledges, all in fair condition.

" This sledge journey is part of a program of Arctic work undertaken by me under the auspices of and with funds furnished by the Peary Arctic Club of New York City.

" R. E. PEARY,

" U.S.N."

We were now free of the pressure-ice and enjoyed the even going inside the fjord-ice. But unfortunately the sledges ran heavily on the snow, which, here mixed up with little grains of sand and gravel, hampered our iron runners. It was with great difficulty that we made the dogs keep up a slow trot, but this, nevertheless, represented a good push forward. On this

## GREENLAND BY THE POLAR SEA

stretch of the coast Wulff found a living saxifrage with fully-developed flowers on stems an inch high; in full bloom it had been suddenly surprised by the winter, which it had allowed to pass over its head as if it did not exist at all, and it quite calmly continued its life now when spring and sunshine once more melted the ice. All its tissues were full of life although the temperature of the air was minus 11° (Cent.), and there had as yet been no thaw during the year.

Near Black Horn Cliffs we made our camp after twelve hours of driving, as neither the dogs nor we ourselves could stand any more. After a slight meal and a refreshing cup of tea I climbed the mountains with the Eskimos so as to ascertain what conditions for travelling the next day would offer. The ice was similar to that of the preceding days, and in spite of all difficulties this was a pleasant surprise; for the ice of Black Horn Cliffs, which runs steeply into the sea without a trace of ice-foot, is not dependable, open water being often found.

Inland we looked across even land with knolls which almost entirely consist of pebbles, clay, and sand. In spite of the absence of vegetation, the view, with its soft, calm lines, is a kindly one. Behind it all the mighty Mount Peneh was enthroned, broad and solid with a skull-cap of white snow.

The land was bare of snow and in vain our two good field-glasses ransacked plains, valleys, and eloughs. Not a hare, let alone a musk-ox, was to be discovered anywhere.

From the wind-swept look-out of our mountain we could see clear across to the country round Grant Land, looming far, far to the north amidst a sea of ice like blue banks of fog. Furthest away Inukitsoq recognized Cape Sheridan, the winter harbour of Nares in 1875-76, and later on Peary's quarters during no less than two Polar expeditions.

Looking from this point across the huge plain of rugged Polar pack-ice with very occasional narrow lanes of new ice, one cannot but feel the greatest admiration for the old English sailor who already forty years ago found a way for ships so near to the North Pole.

## CAPE SUMNER TO DRAGON POINT

*May 5th.*—As usual, we camped on the ice between the highest ice-banks so as to be sheltered from the sweeping blast which whirled across the ice-foot and whipped our tents with showers of snow and gravel. An inhospitable country to wake up in when the day's journey must begin after a good night of rest in a comfortable sleeping-bag! Each day has to be started with a little reconnoitring. One or two men go seaward armed with ice-picks in order to rid the road of the first obstacles. It is always a good thing to get quickly away from a camp, for nothing is more demoralizing than looking too long at the place where last one slept.

We soon found that by going seaward we quickly came across fairly good ice, though it was old Sikûssaq with slippery hilly slopes and annoying hollows. But this old ice alternated with good driving, and thus it happened to our great surprise that we quickly crossed the place where we had expected the greatest struggle. Near Cape Stanton we once more got up on the ice-foot, which was everywhere bounded on its outer side by ridges of from 5 to 20 metres high. We were now rid of the pressure-ice, but the clayey snow gave the dogs hard work in pulling the sledges.

During the previous day's journey we had seen tracks of Polar wolves, a very large male and its mate, which a few days ago had travelled in the very direction in which we were now struggling. On this day also we ran across the same tracks, and the dogs, which scented the strange animals, were animated a little by the hope of a possible hunt. Also we were interested in the tracks, for where wolves exist one will, as a rule, find musk-ox, and we were all longing for fresh meat. In several places on land we found excrements of musk-ox, but unfortunately they were all very old and covered with moss.

So far the day's journey differed only from the many others of laborious and weary struggles along a monotonous and barren coast, in that we passed two beautiful bays. There was Hands Bay, with two peaceful valleys edged by high mountains which further emphasize the idyllic aspect; at the head of this bay the ice was even and appeared to have been melted during the

## GREENLAND BY THE POLAR SEA

summer. Similarly in Frankfield Bay, which with a narrow mouth cuts broadly into the country. The background of this country is formed by Mount Punch with its genially-sounding name, lifting its snowy cap rakishly towards the clouds.

The wind appears to be the only guest in these harsh tracts where even the snow is forbidden to lie as a cover for the sparse vegetation—the charitable gift of summer to the insects, the little birds, and the stray hares and lemmings. But there was sufficient food for musk-ox, for wherever small, clough-like hollows give shelter for the snow, or where a river forces its way from some lake towards the ocean, there is plenty of grass and willow.

The result of the hunt was three lean ptarmigans. One of these was so tame that Harrigan, stealthily creeping towards it, got so near that he could easily take it with his hands. The ptarmigans were boiled in our porridge and imparted to it, with their keen delicious juices, a new and agreeable flavour.

Our two tents were pitched under a steep ice-bank, screwed up under the pressure of the Arctic Ocean to a height of 30 metres above the ice-foot. This bank looked phantastic with its many knotted ice-blocks crawling over each other, and provided a welcome screen from the wind. The place is called, quite appropriately, “Rest Point.” The day’s journey had been fifteen hours long, and, after this last wandering across the mountains, we all accepted the blissful rest which bathes our tired limbs as a rain-shower a thirsty field.

*May 6th-7th.*—It was six o’clock in the afternoon before we were once more ready to start.

Again on this day the ice-foot made travelling heavy. It was almost impossible for the sledges to get along because of all the sand and gravel blown on to the snow, and it was difficult to make the dogs go ahead. The coast was desolate and cheerless, monotonous and depressing. The ice-foot on which we travelled is along its inner edge covered by rather low rounded heaps of gravel, without character and entirely without the

## CAPE SUMNER TO DRAGON POINT

variation of form which otherwise breaks the monotony. Everything about us bears the stamp of the iron climate of the country. The eternal blast has whipped the sparse vegetation flat along the ground, nothing has had a chance to grow erect. All life here bears the yoke of storm and frost.

We snailed along from headland to headland, and every point of land ahead looked like the one we had just passed. The whole coast is clipped and cropped, blockaded by ice-ridges and chilled through by an ocean of ice.

We made occasional halts to give the dogs a short rest, and, in the meantime, we ourselves walked into the sandy desert, where not the slightest track encouraged us to persist. The crushing monotony of death seems to be the only ruler in this district.

During the journey I suddenly discovered a piece of wood placed by human hands in a conspicuous place near a large stone mound. Although in a way it formed a link with other men who have visited this coast, owing to our mood our thoughts involuntarily turned to graves. I hurried up to it to see whether it was not some sad memorial or other connected with Beaumont, but soon discovered that this place had once been merely a depot of provisions, perhaps a salvation for those who, starving and exhausted, managed to reach it.

The coast trends sharply and straightly due north-east and permits no view ahead; little headlands continually block the horizon. But under Cape Bryan the coast suddenly turns southward and opens at once the view to the north, where all the lands which we had dreamed about for months rise up from the ice-ocean and show their brilliant contours in the clear, sharp air.

It was two o'clock in the morning. The sun had not yet reached such a height as to emit a flat and monotonous light; sharp shadows were thrown on to the dark mountain walls, and a fine, tender red still trembled round the topmost peaks, covered in ice and snow.

It suddenly seemed as if the low, dreary coast which we had followed from Rest Point sank into the ocean behind us

## GREENLAND BY THE POLAR SEA

and no longer existed. We could now see far ahead, and with the wide view came that excitement of travel which always carries one across dead points; it was as if suddenly we approached our fate with visors raised, in a manner much more dauntless than before.

Quite near us we saw St. George Fjord, narrow as a river of ice cutting into the land, encircled by high mountains, which, with steep fells seaward, run right in to the inland-ice.

Dragon Point juts out like a wedge between this narrow fjord and the broad, far more impressive Sherard Osborne Fjord, where the broad lines, with the quiet country behind Cape May, put one in a mood quite different to the one created by the wild St. George Fjord. There is a breadth here and a depth, a wild monumental grandeur which fascinates one, especially when one looks upon it from this point and contrasts it with the rest of the landscape. Far seaward one gets a glimpse of Beaumont Island's sharp profile, like a clenched fist in the midst of eternal snow. Even the highest mountains here do not seem to be covered with snow, thus forming an agreeable contrast to the white immensity spreading out at their feet. Across the lowland behind Cape May, where the cone-shaped Cape Hooker dominates the horizon, we discern Cape Britannia's gimlet-pointed peaks on John Murray Island near the mouth of Nordenskjöld Fjord.

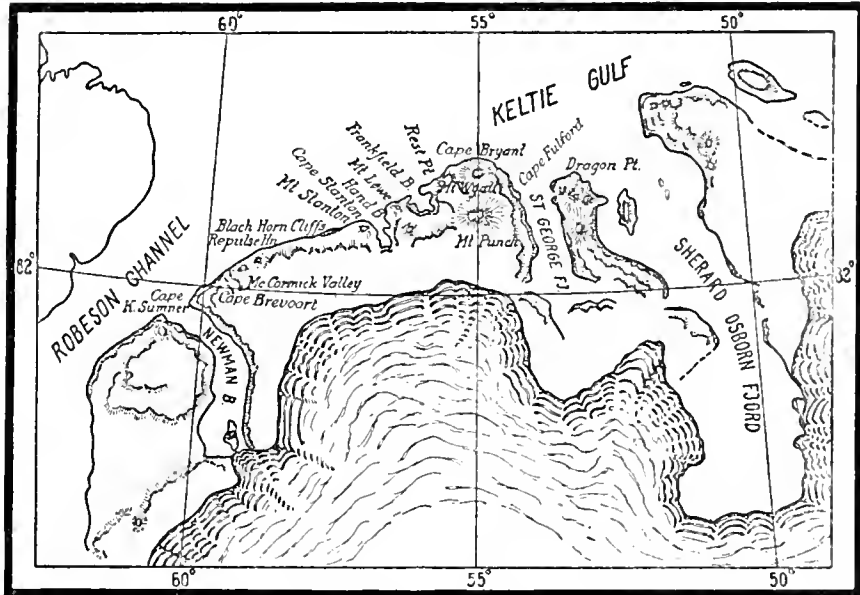
The sky was dazzlingly clear, the air deep blue and fresh, and it was as if the wind itself had other songs here than on the dead coasts from which we had come. On the uttermost horizon of the ice-ocean one sees occasional mirages lifting the sun-bathed pack-ice up towards heaven, giving relief to the monotony which rests over the frost-bound ocean. The immensity, the power and violence which Nature breathes here, where we have halted for a moment so as to take possession of all these new things, communicates itself to our will; and with the enthusiasm only known by men who have dared to leave the high road for the by-ways, we approach the land which holds our future fate.

The glorious immensity gives us new power, and merrily

## CAPE SUMNER TO DRAGON POINT

we turn the dogs down across the ice-foot, driving to Dragon Point along the even ice of St. George Fjord.

At five o'clock in the morning we land on the outmost point, and for the first time for a long period we stand where the rays of the sun are allowed to warm us right through. Not a wind stirs, and a tiny, curious bunting circling above our heads gives us a welcome to our first spring camp.



CAPE SUMNER : DRAGON POINT.

## CHAPTER V

### SHERARD OSBORNE FJORD TO NORDENSKJÖLD FJORD

#### BEAUMONT AND HIS MEN

**I**N the month of May, forty-two years ago, in the very neighbourhood through which we are now travelling, one could have seen a remarkable trail of sick people, exhausted and stumbling, fighting their way through the snow for the purpose of mapping the land, and later on in order to save life and results under an immensely toilsome wandering southward. It was Beaumont and his men from Nares' Expedition.

On our expedition we had passed many historical points, but here more than anywhere else did we feel the contact with those brave Englishmen whose goal was identical with ours, and whose trail we had hitherto followed. As soon as we arrived we discovered in the mountain a beacon, which we visited, and here we found Beaumont's report of the 25th of May, 1876, deposited in a beautiful, water-tight copper case. Besides the report, of which I here give a facsimile, we also found an original map of the tracts which had been visited and charted with English thoroughness. We took this record so that it might later on come into the hands of the British Admiralty as a chapter of Polar history, and put down another record in the same beacon, seizing the opportunity to express our admiration for our brave predecessors.

Lieutenant Beaumont set out from the *Alert* on the 20th of April with a band of twenty-one men, pulling four sledges on which the loads were so distributed that every man would be pulling 218 pounds—a rather stiff proposition.

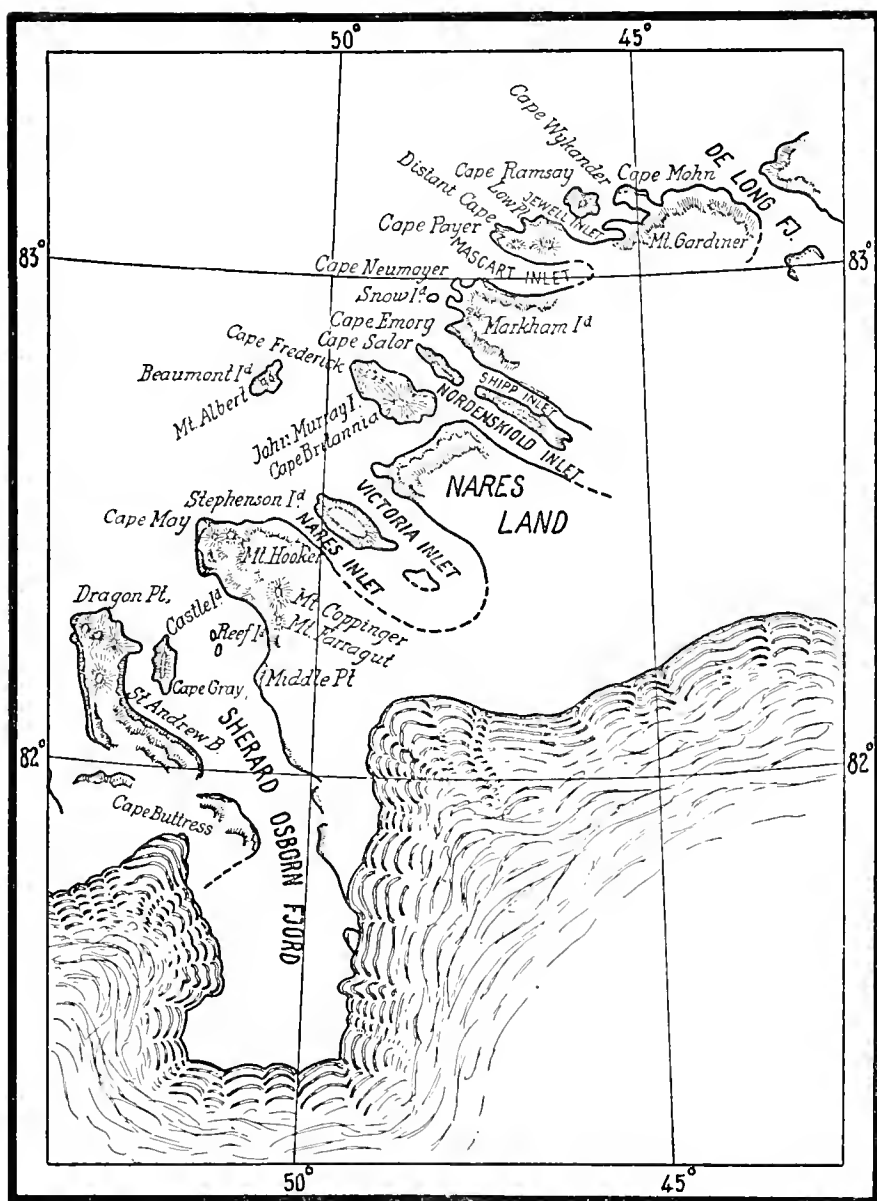




MARKHAM PLANTS THE UNION JACK FARTHEST NORTH



LIEUTENANT L. A. BEAUMONT, ROYAL NAVY GREENLAND  
SLEDGE PARTY, H.M.S. *DISCOVERY*, 1875-1876



SHERARD OSBORNE FJORD—DE LONG FJORD

In the course of a week they reached Repulse Harbour and built the beacon, which we passed on the 4th of May, where Peary's record was found. In the same place a rather considerable depot was laid down for the return journey, and they continued their push forward on the 27th of April, no longer on the ocean-ice, but along the ice-foot just as we ourselves had done. Black Horn Cliffs were passed, and immediately afterwards a new store was deposited for the return journeys. Dr. Copping then left the party, as after the deposition of the stores the assistance of him and his men was no longer required. On the 10th of May the discovery was made that one of the men had contracted scurvy, and Lieutenant Rawson was immediately sent back with the sick man in an attempt to reach the ship. The others continued to put down depots to secure their retreat ; thus one was deposited by Cape Bryan, which is no more than one day's journey from the previous depot. From this point they went via Cape Fulford across to Dragon Point, where we ourselves at present are camping.

As the illness spread among the men it soon became obvious to Beaumont that he could not succeed in reaching very much further north. He now wished merely to climb a high mountain on the north coast of Sherard Osborne Fjord so as to take bearings in the direction of the land which must be found, but which so far had remained hidden. For this purpose he chose a large cone-formed mountain, Mount Hooker, and he now bent all his energy towards reaching it. But the snow lay deep everywhere, and when the people could no longer bear up, Beaumont set off alone to see what sort of travelling he would meet with further on. Of this he himself writes the following :

"The coast which we tried to reach did not appear to be more than two miles away from us, and I therefore went on to examine whether it would not be easier to travel by land. I covered about one and a half miles in three hours, and then gave it up.

"My strength was nearly exhausted, and I hailed the men and told them to have their lunch, but I myself would rather forego three meals than walk all the way back."

## GREENLAND BY THE POLAR SEA

On the 19th of May Beaumont writes :

“ No one will ever be able to understand what hard work we had during these days, but the following may give them some idea of it : When we halted for lunch, two of the men crept on all fours for 200 yards, rather than walk through this terrible snow.”

On the 22nd of May they were forced to begin the return journey without having reached Mount Hooker. Subsequently a report was left on the small Reef Island, and also the one on Dragon Point which we had now found. We decided to take only the record from Dragon Point, as the other one, which would probably be similar to ours, ought to stand as a memorial of English endurance here in the very country where the work was done. During the last days of May everybody with the exception of Beaumont and Gray was ill ; they therefore had to leave behind various things which were not considered absolutely necessary, as the point was reached when the exhausted men had to ride. The first who fell was a sailor named Paul, and another followed him on the 7th of June. On the 10th of June they reached the depôt at Repulse Harbour. They had plenty of provisions, but unfortunately it was just the provisions which had caused the disaster.

Open water prevented them from crossing over to the *Alert*, so they decided to travel down to Hall's Grave. The day after they had altered their course a seaman named Dobing died, and another man named Jones had, because of his weakness, such an awkward fall that he had not the strength to go very much further. How they managed to pull the sledges up Gap Valley, with all this illness and exhaustion, is a perfect riddle to us who have looked at the stony pass. The English will, which often stiffens into obstinacy, manifested itself here ; there is nothing to say but this, that as there was no other way they went up through Valley Pass. We others can only bare our heads to those who did it. At last they reached Newman Bay, where Beaumont himself, as it was no longer possible to pull all the six comrades along on the sledge, intended to go to Hall's Grave,

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Dragon Point May 25<sup>th</sup> 1876  
Latitude. 82° 20' Long. 51° 31' W  
(approximate).

This record with the accompanying skeleton chart is left here by Lieut Beaumont of H.M.S. Discovery in command of the sledge Sir Edward Parry, and party of 6 men. The party landed on the Greenland coast at Repulse Harbour on the 27<sup>th</sup> of April, parted with its two supporting sledges on the 5<sup>th</sup> and 11<sup>th</sup> respectively, and after some heavy travelling, reached its farthest point 2 miles east of Reef Island on the 20<sup>th</sup> May. The party was prevented from landing on the further shore by the deep snow, and the weakness of 2 men. Waited there for two days in the hopes of being able to ascend the Mountain over the Glacier but the weather having remained thick snowing, and the day for <sup>the day</sup> turning back having passed. Started on the return journey on the evening of the 22<sup>d</sup>. Built a cairn and left a record on the North end of Reef Island, as the farthest point reached.

This party forms a portion of the Arctic Expedition of 1875 which left England on the 29<sup>th</sup> May 1875 consisting of the 'Alert' Captain Nares, commanding the Expedition, and the 'Discovery' Captain ~~Yeo~~ Stephenson.

The two ships reached Bellet Harbour on the South coast of Grant's Land in Lat 69° 13' N and Longitude 65° 3' W on the 26<sup>th</sup> August 1875, here H.M.S. Discovery wintered.

H.M.S. Alert proceeded North on the 28<sup>th</sup> and went into Winter quarters on the coast of Grant's Land inside a barrier of grounded floe-bergs in Lat. 82° 27' N and Longitude 61° 22' W on the 2<sup>nd</sup>.

of September 1875, her further advance to the Northward having been stopped by the Polar pack

Sledging parties left the "Alert" during the autumn and pushed depots out to Cape Joseph Henry Lat  $82^{\circ} 17' N$  from whence the land was observed to extend to the North West, the farthest point seen (called Cape Aldrich) being about in Lat  $83^{\circ} 16' N$

Sledging parties have left both ships this year for the purpose of exploring in the following directions

Com<sup>d</sup>. A. H. Markham & Lieut. A. A. Chase Parr 3 sledges and 2 boats. - Due North, in the direction of the Pole

Lieut Pelham Aldrich 2 sledges North coast of Grant's Land

Lieut L. A. Beaumont 3 sledges North coast of Greenland

Lieut. P. H. Archer 2 sledges Lady Franklin Straits and South coast of Grant's Land.

Dog sledge parties have visited Repulse Harbour & Peary's Bay, and are now exploring various tracts of country

Much game consisting of musk oxen & hares, were procured at the Discovery's winter quarters, but little or none further North

The general health of the Expedition has been very good up to the date of this party leaving the ship "Alert"

L. A. Beaumont.

Lieut. P. H.  
Command of Party

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for there was a possibility that a relief party might have been sent out and would be waiting there. And there fortune met them, and saved those who could still be saved, as they fell in with Lieutenant Rawson, Dr. Coppinger, and Hans Hendrik with his dog sledge.

After a long rest near Hall's Grave, Beaumont continued his journey across Hall Basin to Lady Franklin Bay, where the *Discovery* was lying. On the 14th of August, after a most adventurous journey on drifting ice-floes, they at length reached the ship.

### TO WORK AT LAST

We now started in earnest. Our expedition had covered the first thousand kilometres of the journey, and we were already in tracts where we might hope for a good hunting. We had left home with provisions for two months, but half of them we used up on our journey, the other half being deposited a short distance below Beaumont's beacon. This latter half consisted of pemmican, biscuits, coffee, oats, tea, sugar, tobacco, and a quantity of ammunition, the last so far superfluous. We hoped that, before our departure, we should be able to supplement this with some fresh meat for ourselves and the dogs. We did not yet know from which point we should ascend on to the inland-ice on our return journey, but as the probability was that it would take place here, we relieved the sledges as soon as possible of superfluous things, so that we should not drag on unnecessary baggage. We also left two sledges, and the teams of these were distributed among the other sledges. Above everything, it was of importance that we should make good speed, and so we burnt our boats behind us by providing ourselves with food for men for three days only, and for the dogs only one meal, which would be given to them the first time we made camp.

We had now six dog teams of altogether seventy dogs, and if these could only have a few days' rest and strong food, they would soon regain their full strength. At the moment the position, so far as the dogs were concerned, was somewhat critical ;

## GREENLAND BY THE POLAR SEA

the fight against the pressure-ice had obviously worn down both their bodies and their tempers. They no longer walked proudly with tails erect, the expression of their eyes was subdued, and their skins no more possessed that glossiness which is the surest proof of well-being and strength. Their tails flopped limply between their legs, and we all felt it our duty to restore their strength as soon as possible.

A reconnoitring in the neighbourhood had a discouraging result. We walked far into a snowless, stony terrain, but nowhere could we find fresh tracks of musk-ox. Scattered flocks seemed to have been here many years ago, but not even the clay showed recent tracks. Of ground game there was a fair amount of hares; they were very shy—an unfailing indication of the absence of musk-ox. In all places where the hares eat grass side by side with the wandering wolves, they flee as soon as they get a glimpse of any other living thing. And, according to the tracks, it would seem that there were not a few wolves. It was obvious that the hares were used to meeting enemies only. But where they live on land with peaceful musk-oxen, they show, on the contrary, no nervousness even if one takes them by surprise rather suddenly on the hill-crest.

We often saw ptarmigans, but only in single pairs; but these were too small, so for the time being we would not kill any great amount of them. Their white winter coats, which previously made them so conspicuous in snow-bare spots where they seek their food, were already beginning to give place to the brown feathers of the summer. They filled the landscape with their cooing, which between these silent mountains sounds like a song in the loneliness.

The tableland inside St. George Fjord, dotted with mountains, so far did not tempt us to waste our time hunting; and those parts of Sherard Osborne Fjord which from the mountain we had been able to survey with our field-glasses were, to our great disappointment, so glaciated that a visit there would be too risky. I therefore decided to postpone the exploration of these fjords for the time being, until we felt our existence somewhat secure by successful hunting. We were beginning to feel







THE LAND ROUND CAPE MAY

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a little of the hazard which is bound up with the life of the Eskimo and of the expeditions, whose future, after the manner of the hunters, depends upon hunting on new grounds.

### THE FIRST HUNTING

*May 8th.*—We have been continually looking out for the snow which caused Beaumont and his men such great difficulties, and only to-day on our way to Cape May do we find it. For the first time since we left Thule the dogs lie down and refuse to continue, and, so that the whip might not be used too industriously, we prefer to go in front on skis. The dogs then willingly follow, dragging the heavy sledges. We have all taken to our snowshoes and skis, for without them it is quite impossible to make one's way through the snow. Once more we admire Beaumont and his men who, with the intolerable pains of scurvy, stumbled across ground like this, with stiff legs, tender, skinned feet, and, from the traces of the sledge, sores on shoulders and back.

After six hours of toilsome marching, we reach a large block of ice where we make a halt, as thick weather from the west draws across the fjord and blocks our view. A clammy fog envelops everything and a raw breeze gives us a gloomy greeting from the Arctic Ocean.

*May 9th-11th.*—The following day we have to continue in the same weather, for it would be impossible to remain here. Some distance from Cape May the weather clears and turns out fine, and we hurry ahead and reach land after six hours.

We round Cape May through difficult pressure-ice, and when we have passed a headland where the ice is even and bare of snow, the dogs set off at a trot whilst we ourselves for the first time during a long period throw ourselves down on the empty sledges.

We know from previous American expeditions that half a score of years ago there were musk-oxen in this neighbourhood, and I therefore decide to try to hunt in earnest before the dogs are too far gone. Ajako and Inukitsoq are sent up through the valleys to some large mountainous stretches, topped by glaciers,

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which certainly appear more generously covered with ice than suits us. Koch and I accompany them for some distance, and discover to our joy that the land here has a far richer vegetation than the barren coast between Newman Bay and Sherard Osborne Fjord. We also find tracks in the clay of musk-ox and a quantity of excrements which cannot be very old. And while the two hunters continue their way, each dragging his dog along, we hurry back to the sledges to find a convenient place for a camp further ahead.

As soon as we find a place, I run off to the mountains with Bosun and Hendrik, while Wulff and Koch are left behind to pitch the tent.

After a laborious climb up the mountain-sides, consisting only of small stones which slide downward under our feet, we reach the top of a high tableland stretching inland. We pass two skeletons of musk-oxen, but they are too old to damp the excitement which has seized upon us. A little later we reach the edge of the stony tableland, and from this point we look across a broad, large valley penetrating far into the land. Two large rivers still lie frozen on both sides of the valley, right against the high mountains. We barely get a glimpse of some large lakes, the fertile banks of which would surely present a tempting abode for the game we seek. The land shows a grand alternation of plain and mountain, but in vain do we examine with the field-glasses all cloughs, river-beds, and valleys which our eye can reach. Not a living form do we discover, and we return disappointed to our tent.

Disappointment always increases a hunter's weariness; we therefore all felt as if we had weights of lead round our ankles when we returned without a catch. Slowly we slid down the mountain without energy in our movements, without spirit as we rushed down the steep snowdrifts. But hardly had we got near the tent before Wulff tore aside the flap, running towards us; Ajako had shot the first musk-oxen on our voyage—three cows! This certainly put new life into us; our tiredness seemed blown away, and we began at once to crawl up the big mountain from which we had just rushed down, and where the hunters

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were still busy flaying their quarry. I need not describe this beautiful finish to a long day's journey; suffice it to say that we gorged ourselves with tongues and choice morsels far into the night, and that the sleep, which later overwhelmed us and all the sated dogs lying around the tents, was as long as it was well-earned.

We have now to exploit the country through systematic hunts, wherefore we divide into two parties. Wulff, Ajako, Inukitsoq, and Hendrik go in different directions into the great valley which we saw from the mountain yesterday. Inukitsoq had on his hunt found a lot of fresh tracks and excrements in sand and clay. It would therefore appear that the hunters would have an exciting time if only they would persevere. According to this arrangement we should have sufficient hunters for the immediate vicinity, so I myself chose to drive in Victoria Fjord with Bosun, partly for the purpose of hunting, partly so that I might more closely examine the country. We have the advantage of being relatively many, so that in the course of a few days we shall have obtained a perfect survey of the new land. When I mentioned the first disposals for our journey, I emphasized that we could with certainty expect to catch seals some time during the spring, as Eskimos who had accompanied American expeditions in these regions had told of the many breathing-holes they found in places where the ice was young. But we could not reckon on a catch yet, as it was still too early in the spring. Neither could we reckon on finding bears so far north, where the massive quality of the ice would make it difficult for them to find food. We found a track off Cape May, but that was the only one we had so far observed.

During the coming few months we must thus rely upon the musk-ox only, and as, according to the map, the inner reaches of Victoria Fjord contain large stretches of land, Bosun and I hurriedly collected our best dogs and set off before our comrades were ready. Yesterday's meals of solid meat had revived the dogs, and in the beginning we made good speed. We

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drove into the narrow inlet between land and the tall Stephenson Island, impressive with its steep, exclusive mountains, the inmost regions of which are covered by local glaciers.

We set off in the evening, and in quiet, beautiful sunshine we struggled inland, taking turns at leading. Bosun, a boy not yet twenty years old, had repeatedly shown a surprising capacity for endurance; he had a healthy, even temperament and did not seem susceptible to any kind of adversity, if only he could get somewhere near the rations which his young muscles demanded. He enjoyed his meals very much, and occasionally surprised us with his voracious appetite.

A rather large island behind Stephenson Island is marked on the map, but it proved to be non-existent. Twenty-five kilometres into Victoria Fjord we got the view which we were in search of, and drove into a bay to the west of the big island, looking for a place suitable for a camp, so that the dogs might rest while we, in snowshoes, continued further inland.

We ascended the mountains immediately, and found to our surprise that this fjord, which had previously been described as an enormous arm of the ocean, so deep that one could not even discern the land at its head, is hardly more than 80 kilometres in length. The head of the fjord ends in a broad glacier which, faintly sloping, merges into the inland-ice itself. The great stretches of surrounding land, which the old map promised we should find here, do not exist. Far to the north-east we found land, but it consisted only of steep, glaciated mountains, standing like narrow walls with their backs clean against the inland-ice. Also to the south-west we saw far inland a steep alpine landscape with occasional broad eloughs, but the entrance to this was blocked, as the inner reaches of the fjord consisted of floating inland-ice, slowly moving outward, so that trackless ravines were apparent not very far from our look-out.

This fjord, from which we had expected so much, proved to possess none of the means of subsistence necessary for the accomplishment of our scientific work. Hunting in this country would be both dangerous and futile. We could only hope for better conditions round Nordenskjöld Fjord. We discerned moun-

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tains far away to the north-east, but even from the point on which we were now standing, it was obvious that the land would not stretch far in ; for the back of the inland-ice shot up all-embracing over the tracts where we had expected land-hunting.

The only place left to us was the big peninsula between Victoria Fjord and Sherard Osborne Fjord, but even this did not seem promising. Although occasional, even stretches with low knolls exist here—a landscape much favoured by musk-oxen—many little local glaciers shot in between them, killing all life.

Our hunt over the surrounding neighbourhood resulted in a bag of two hares, one of which we cooked before, disappointed and tired, we started the long return journey to our comrades, whom with unwilling and weary dogs we reached after an absence of twenty-four hours.

On our arrival Koch came running out of the tent, and his gestures showed us at once that he had good news. Ajako and Wulff had shot six musk-oxen, and all the three sledges had gone out to fetch the animals!

Great joy!

Towards morning—it was one of the first really warm days—the sledges returned with barking, overeaten dogs. Inukitsoq had, during his hunt for hares, met a flock of ten animals right opposite to the six which had already been shot, and which they had come to fetch, and the hunt of the day thus brought in sixteen musk-oxen.

Still greater joy!

At eight o'clock in the evening Koch and Inukitsoq drove in Victoria Fjord for the purpose of charting it.

## DAYS OF REST AND FATTENING

*May 12th-17th.*—The welcome meat which we have now collected makes it possible for us to give the dogs the rest which they so richly deserve. They will now be allowed to laze about for a week or so, and to eat as much as they can get down ; then they will once more be fit to take up the work which for the

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time being is interrupted. And these days of good hunting do not merely mean that in the course of a few days we shall again be ready to continue our journey with fit and willing dogs; they also mean that we shall be able to clear up behind us before we continue. For we are now going back to Sherard Osborne Fjord so that we may chart this fjord as well.

To-day we choose a convenient site for our camp, where we can enjoy life at not too great a distance from the killed musk-oxen. We drive up the river which runs through the southern side of the valley to the big, beautiful lake on the banks of which the welcome big game had to bite the dust. The tracts round the river and the sea look kind and fertile, comparatively large grass plains stretching across the well-watered spaces. We, who for a long period have been accustomed to barren, stony fields, feel that all this grass dotted with willows is a greeting from the summer, which fights its everlasting battle against the ice.

Here is plenty of excrement of musk-oxen; every stretch of clay and sand bears the imprint of their hoofs, and all signs point to the probability that the killed animals must have lived near this sea for a long time.

Behind the sea the lowland stretches inland as a broad clough-like valley. Wherever the eye rests, stone predominates; but nevertheless it is apparent that the many little rivulets, which during summer-time seem to run down the brown sides of the mountains, water the neighbourhood so plentifully that in the midst of this desert of stone one finds little oases where herbivorous animals can exist. Apparently here is also an abundance of hares, and for the first time since we left the flesh-pots of home we have the feeling that we can eat our fill, without the fear that a greedy appetite shall take too big a slice out of the rations apportioned to each man.

The ice on the lake bears witness that we have arrived in no quiet valley. Along the bank it is bare of snow and shiny, but further in the drifts have been whipped stony hard by sand and gravel. On the snow-bare grass plain we pitch the tents, and it is delicious for once to lie on ground which does not con-





THE FIRST THREE MUSK-OXEN



INUKITSOQ'S TEN MUSK-OXEN



A REST OFF STEPHENSON ISLAND IN THE MOUTH OF VICTORIA FJORD

sist of cold, creaking snow. The nearest musk-oxen are being dragged down and the dogs have a meal so substantial that they lie down with big, balloony stomachs, groaning and overgorged, dreaming of the time when there was nothing called expeditions. We men sink into the same materialistic state, but with the difference that we carefully select all the delicious morsels which constitute the chief relish of an Eskimo hunter after a successful catch. Of the killed animals, fourteen are cows and eleven bulls. Round the hearts and kidneys of the oxen we find not a little fat, and also in the hollows of their eyes there are large adipose deposits; this we eat with a specially keen appetite, for the meat we have lived on hitherto has been very lean, and in these regions one's craving for fat is greater than in other places.

The days are raw and cold in the valley, and, although the temperature registered is only between 10 and 12 degrees of frost (Cent.), the wind is unpleasant. There is an incessant drift of sand and stone, and when we go out for meat, our coats are covered with dirty, sandy snow, which sticks between the hairs and is almost impossible to shake off. We therefore decide as far as possible to remain in the tents, where we spend a pleasant day munching.

*May 15th.*—The 15th of May is uncommonly raw and windy. We bring the last carcasses down to the tent, and make ready to go down on the ocean-ice again, where there is more shelter and more warmth from the sun than in these windy quarters.

A couple of the large animals, which were deposited near a mountain from which transport was particularly difficult, were fetched immediately before we moved. On this trip we found behind a big stone a dead musk-ox which strikingly illustrated animal life up here. The musk-ox was a young animal; it had been pursued by a wolf, and in its fear of its deadly enemy it forgot to use its eyes and got its legs squeezed in between two large stones. In this helpless position it was an easy prey for the wolf. With one single snap the thick gristly throat was ripped up, and the rent, as if cut with a blade, went straight downwards through the chest to the diaphragm, which had been

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torn up with a single wrench of the iron jaws of the wolf. The whole cut was dealt by an expert possessing a certainty in the method of killing achieved only by the habitual perpetrator of violence. Only the tongue, the heart, and the fat round the intestines was eaten, otherwise the flesh had not been touched. There were traces of fox round the spot, but strangely enough it did not appear as if the fox had feasted greatly on the huge ear-case; perhaps they prefer the tender and fat lemmings to the tougher big game.

Early in the morning of the 16th of May, Koch and Inukitsog arrived from Victoria Fjord. Not only had they examined and charted the fjord, but in addition they had had the good fortune to shoot six musk-oxen on the lowlands which Bosun and I traversed in vain. We could not withhold our shouts of joy when we received this news; for beside the charting work of this last fjord, our stay in Nares Land since the 9th of May has resulted in a catch of twenty-six musk-oxen and thirty hares. The survey of Sherard Osborne Fjord now remains. I consider it advisable to set the course southward again as soon as weather permits, and the expedition is divided into two parties: One hunting party, consisting of Dr. Wulff, Hendrik, Inukitsog, and Bosun, continues northward towards the supposed land round Nordenskjöld Inlet. The charting party consists of Koch, Ajako, and myself. We return temporarily to Sherard Osborne Fjord to finish our work there. But we decide that Hendrik and Bosun shall accompany us in order to fetch part of the goods left at Dragon Point, whilst Inukitsog drives in Victoria Fjord to fetch the rest of the meat deposited there by himself and Koch. Wulff remains in camp to hunt hares in the neighbourhood until his party is collected and clear for the journey.

In the meantime dirty weather seems to be brewing, and in order not to prolong unnecessarily our stay in this valley of the far too powerful lungs, we move our camp on to a little island at the mouth of Nares Fjord where, at the same time, we deposit all our precious musk-ox meat. Whilst the rest of us drive the meat-laden sledges to the depot, Wulff elects to walk the 5 kilo-

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metres across land to the little island which we call Depot Island. Although the distance is short, it took Wulff fourteen hours to find his way through the heavily driving snow. We were unable to search for him, as none of us knew in which direction the hunting might have led him, and great was our joy when at last he arrived with a catch of ten hares.

The hares here appear in big flocks, and are surprisingly tame compared to those we have hitherto met. They are obviously accustomed to grazing with the musk-oxen, and therefore consider man to be just as peaceful as are these huge animals.

### BACK TO DRAGON POINT

*May 18th-19th.*—The storm of the last few days has added more than a foot of soft, new snow, aggravating the old and already awkward going on the fjord, so that we now have the "icing-sugar" state of which Beaumont complains in his report. Although the dogs have had eight days' rest, during which time they have been gorged with food, it does not take long before they are again ready to give up. Once more we have to start our old game of walking in front of the dogs on snowshoes and skis, but it is slow work, and progress is made without the good spirit usually attendant on a sledge-train when the dogs trot willingly ahead. We have twenty-two shoulders of musk-ox meat, and these we hope will enable us to accomplish the work which we have decided on. During our stay in the musk-ox valley we have already killed all the dogs which we thought we could do without; for even if hunting has been favourable so far, it is an advantage to have as few mouths as possible to feed in these regions—partly because musk-oxen are very lean at this time of the year, partly also because the bones are too massive for the dogs to gnaw. All our dogs lack the saw-edges of the raptorious tooth, these having, according to the custom of the Eskimo, been removed whilst the dogs were young. This operation is advantageous for the travelling explorer, in so far as the dog is unable to eat his harness and traces when hunger

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forces him to make such an attempt, for harness and traces are unplaceable during a journey. But, at the same time, it is robbed of the ability to eat very hard bones.

We had fine, beautiful weather, but for all that we did not succeed in reaching the depot in one run. We had to camp right out on Sherard Osborne Fjord, just as we did on the outward journey, and not until the 19th at noon did we reach our old camp.

*May 19th.*—Immediately before our arrival at the depot we saw to our great pleasure the first seal crawling up on the ice to sun itself; unfortunately it was not killed, although Ajako got very close to it, the bullet passing above its head. In spite of this mishap, the occurrence was of the greatest importance to us. For when the seals begin to crawl up through the old thick Polar-ice already by the middle of May, we are sure of good hunting here nearer the end of June. Successful seal-hunting in this neighbourhood will simplify our return journey very much.

Twenty hours of hare-hunting gives the very meagre bag of only one animal, for in this neighbourhood the hares are so timid that they run off long before a shot can reach them. Some distance from the camp we found the skeleton of a seal on the shore; it had been caught and eaten by a bear. It thus seems that the bears pay occasional visits here, and it is to be hoped that we may succeed in meeting one of these wandering fellows.

While Hendrik and Bosun drive back to Depot Island, the rest of us make the last preparations for the journey into Sherard Osborne Fjord. First, however, we watch their start. Slowly, very slowly, the dark figures move across the ice. The snow is deep and so loose that the sledges sink into it in spite of the skis. The dogs sink down to their bellies, dragging their tails behind them.

For a long time we hear across the quiet fjord the drivers desperately shouting to the dogs.

# SHERARD OSBORNE FJORD

## IN SHERARD OSBORNE FJORD

*May 20th-22nd.*—The ice in along the fjord proves to be better than we expected, and for the first 20 kilometres we could drive at a loitering pace without an outrunner. Six kilometres from Dragon Point we again see a seal. Unfortunately we do not get within shooting distance, as it heard us before we caught sight of it, and plopped down through its breathing-hole as soon as we stopped in order to attempt to creep up to it.

We pass the tall, beautiful Castle Island and get 30 kilometres into St. Andrew Bay, as further in the snow gets deeper, absolutely unnerving the dogs. The ice here is very uneven and has the characteristics of floating inland-ice. East of Castle Island we come across a couple of large pressure-ridges running at right angles on to land, parallel to the glacier; this indicates that the ice, even so far out as this, has been under the pressure of the main glacier itself.

At nine o'clock in the evening, Koeh and Ajako go into the mountains with a theodolite to take the bearings of St. George Fjord. At three o'clock in the morning they return, having had a view of the fjord, discovering large snow-free land behind and to the south-west. They have also seen an evenly sloping glacier which, between a couple of large mountains, seems to have an even and good connection with the main glacier. This observation further strengthens my resolve later on to try an ascent from this vicinity, when the return journey will sometime lead us on to the inland-ice.

Ajako has shot two hares, which constitute a delicious evening meal and enable us to save the musk-ox meat for the dogs. We have only brought one single, though abundant, ration for them, depositing the rest at Dragon Point for the return journey.

Shortly after the arrival of my comrades two snow-white wolves are silhouetted high up on a hill-crest. Their slender bodies show their plastic beauty against the sharply-blue sky, and they look quite anciently Norse as they trot down towards our camp, sniffing and scenting, full of wonderment.

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They stop suddenly by the ice-foot about 500 metres from our tent and follow for a whole hour, thoroughly examining the trail of Koch and Ajako, trotting up and down, now and then stopping to sniff. Then they lift their heads and howl long and persistently, a strangely melancholic and lonely-sounding song of lamentation, which echoes between the mountains. Our dogs prick their ears and look landward in surprise, as if they heard well-known but forgotten tunes; they arise and stare searchingly towards the mountains, but they do not join in the chorus. As the wolves do not appear to wish to come nearer, Ajako approaches them with gun and a dog, a small, lean bitch which has previously shown itself to be a good bear dog. One of the wolves, evidently the male, is very large and strong, and its trot is springy and the fall of its feet rapid. The other one seems somewhat frailer, but nevertheless it is more sinewy than a dog. As soon as the little white bitch catches sight of these rare beasts of prey, which have the same colour as itself, it rushes barking to the land, with tail erect, ready to attack. But the big, silent hermits, which are so much stronger and in full possession of their knife-sharp teeth, put their tails between their legs and flee cowardly in among the mountains. They both have blood on their chops, and have presumably just been feasting on musk-ox meat; a smaller animal could hardly have smeared them so extensively with blood. An hour later the little dog returned, steaming with heat, but apparently disappointed over the lost opportunity of an open fight.

It is six o'clock in the morning when we go to rest after a long day full of events.

On the inward journey travelling conditions are yet more difficult; the uneven ice and the snow, which becomes deeper and deeper the further we go, take the strength out of the dogs to such an extent that I decide to abandon driving and attempt to continue on skis. We make a halt by a headland and shoot four of the slackest dogs. After this, we give the remaining dogs a feed of musk-oxen. The original decision was to con-



time inward at once, but this has to be given up, as Koch is so exhausted after several days of diarrhoea that he has to rest: furthermore, Ajako has gone snow-blind. Thus the distance covered during the day is only 10 kilometres; but then, the dogs were unusually slack and weak. The only encouragement the day had to offer us was the trail of a lemming, which showed that this strong and obstinate little animal had set out on a journey which was to take it from one coast of the wide fjord to the other.

*May 23rd.*—At one o'clock in the night Koch and I, respectively on snowshoes and skis, begin our toilsome walk through deep snow in towards Cape Buttress, which stands as a mighty signboard on the point where the fjord contracts into a narrow channel, from which it widens out again to a great breadth. Ajako, who is now perfectly snow-blind, has to be left in the tent. The journey is very strenuous and takes us fourteen hours, but it is with interesting results that we return. Sherard Osborne Fjord was marked on the map as the largest of all fjords, as Cape Buttress formed merely the half-way point to the inner widening which contracted here, and later on, in the full breadth of its mouth, swung slightly towards south-west up towards the white inland-ice.

Cape Buttress is a wild and monumental complex of high mountains, the summits of which are covered by a glacier, gigantic and brilliant with red hues, blossoming out under the rays of the sun.

We had followed the coast on the western side rather close to land, and every time we looked eastward we saw a low cloud-like brim which often covered the lower part of the shore. It was like a small bank of fog which, white and trembling, encircled the feet of the mountains. Only when we arrived quite close to the great cape towards which we made our course did we come suddenly out on the fog-bank itself, and we now discovered that the mystery was low-floating inland-ice, reaching right down to Cape Gray on Castle Island. This floating inland-ice, which further out raises itself only a couple of metres above the old Sikûssaq ice, mounts quite evenly inward where,

## GREENLAND BY THE POLAR SEA

with the real characteristics of a glacier constantly increasing in thickness, it passes Cape Buttress on the inner side. No fissures were apparent, wherefore this ice-stream, which runs out between two beautiful mountain tracts, would present a convenient point of ascent on to the inland-ice itself if one did not run the risk of finding clefts further inland. At any rate, both Peary and Astrup mention that on the main glacier inside Sherard Osborne Fjord they often had to take an inland course to get inside the many broad and deep clefts which blocked their way.

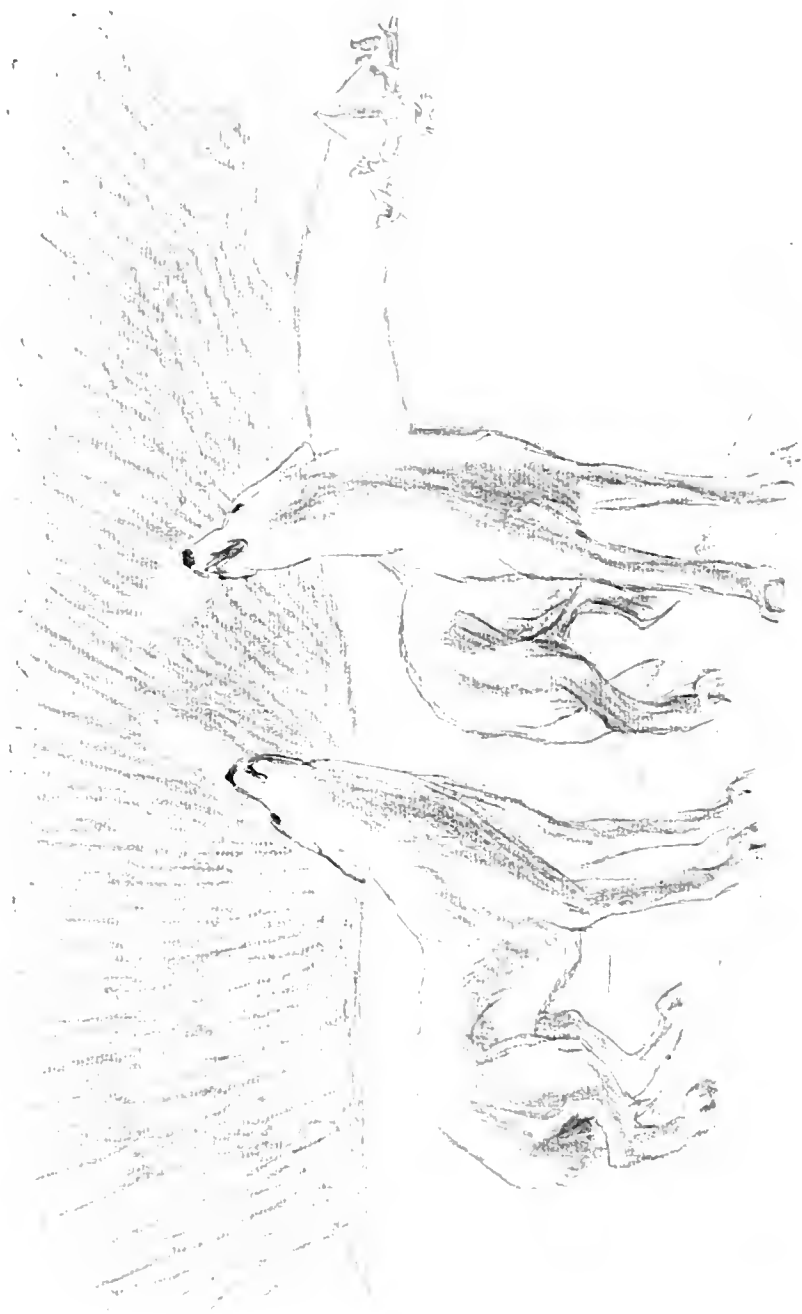
The discovery of this far-reaching tongue of the glacier reduces the extent of Sherard Osborne Fjord to a bare third of what previously it was supposed to be, and at the same time it gives an explanation of the belts of pressure-ice which a few days ago we saw at the height of Cape Gray. This ice-stream, then, is in constant, even movement outward, and thus exerts a pressure on the old Polar-ice, so that the ridges arise in places where otherwise one would not expect to find any movement.

To the south-west of Cape Buttress a fjord cuts in, surrounded by a great lowland ending in a high cape on the western bank. This fjord, with its surrounding land buried in deep snow, we christened "Ski Cove."

When we had completed our survey we turned homeward, and it soon became apparent that Koch, who during these last few days had not been well, was much more ill than I had suspected. A few times before we reached our tent he had to lie down on the ice to avoid fainting, and I am sure it was with the utmost effort that he succeeded in accomplishing the journey, which even for a healthy man is very tiring, as we had continually to toil through the deep snow, which was so soft and fine that neither skis nor snowshoes would carry one.

*May 24th.*—Whereas the weather was clear with almost a dead calm at the head of the bay where we had been, at the mouth of the fjord there had been strong showers of driving snow during the last few days. The ice was therefore partly blown away, and although the dogs during the last couple of days had to live on their four killed comrades, we had no great

THE WHITE WOLVES HOWL THEIR PECULIAR MELANCHOLY AND DESOLATE LAMENTATION





THE LOW GLACIER WITH LINES OF MOVEMENT



DIGGING OURSELVES OUT AFTER A SNOWSTORM

difficulty in driving them ahead, as travelling conditions were better.

During the latter part of the journey we met with an adventure which gave us a good push ahead. We discovered suddenly, ahead of us, two white forms slowly approaching. In the beginning we imagined them to be bears, and rejoiced already in our good fortune which would provide us both with food for the dogs and fill up our own flesh-pots.

The big white animals moved slowly towards us and at a distance they behaved just like bears, scenting their way towards the enemy. Hardly had the dogs discovered them when off they flew, all weariness forgotten and the carnivorous urgings, which had so long been suppressed, aroused with a new and unknown force. We rushed across the ice at a speed which we had not found possible since our last bear-hunts. Unfortunately the whole thing was dissolved in deep disappointment when we found that the animals were two wolves which had wandered out on the ice. As we approached them they ran off in the direction which we were taking, and thus it happened that the rest of the distance to our depot was covered at a full gallop.

Our excitement was of course great, as the trail showed that the wolves had just come from the depot where, beside our clothes, we had also left some shoulders of musk-ox meat which were to save our dogs. But fortunately the unwelcome guests had been too cowardly to go right up to the depot, which was quite untouched, though, judging from the tracks, they had been slinking about for the better part of the day tempted by the smell of meat.

#### AT DRAGON POINT

*May 24th-26th.*—The state of the fjord can hardly be worse, and yet it has again started snowing! The tracks which we were to have followed to Cape May, and which would have eased the work of the dogs, are quite obliterated. The position is not encouraging. At our arrival here last night we fed the dogs with the last of the musk-ox meat, and we ourselves have

## GREENLAND BY THE POLAR SEA

very short rations to live upon if we are not to attack our depot, so far sacred as a reserve for the return journey.

Koch lay down immediately after our arrival, and all through the day he has had high fever, which has further enfeebled him. He is in a bad way, though some improvement is noticed towards evening after a good sound sleep. However much we wish to get away from this place, which offers no possibilities for existence, I dare not continue with Koch in his present state. We must therefore kill more dogs and calmly wait for better times. The snow sings softly but uncannily on the canvas ; it falls in fine, close flakes which for every hour that goes make travelling conditions worse. But the mood consequent on these happenings, when everything seems to go contrary to our wishes, finds a natural outlet in a little verse of Sophus Clausen :

For such is life up and down,  
And such is life out and in,  
And he who nothing better knows  
Must take his lot with an open mind.

The following day we have to lie up again ; the weather clears up beautifully, but although we make repeated excursions inland we find no game. Neither does any seal crawl up on the ice, so to-day we have to shoot three dogs—three poor, lean dogs.

With a heavy heart I have to shoot old Miteq—"the Eiderduck"—the oldest one in my team ; a patient and industrious animal which dragged until it tottered with exhaustion between the traces. It was probably the most faithful one in the team, therefore the most worn-out and the one which, with its skinny carcase, must serve to satiate its comrades.

Poor Eiderduck !

I would fain have given it a safe return and an old age free of cares. Through Hall Basin and the destructive pressure-ice of Robeson Channel, across the heavily gravelled ice-foot between Cape Brevoort and Cape Bryan, and at last through the bottomless snow of Sherard Osborne Fjord, it has worked patiently and steadily. It reached Nares Land and ate as much

## SHERARD OSBORNE FJORD

as it could manage of delicious musk-ox meat. But then it had to turn back once more through the trackless country. It was a mute but willing worker in the service of exploration. Always industrious, it dragged to and fro with its stumpy tail straight up in the air ; but just as I was ready to set across to our meat store, illness claimed it—a sacrifice for the benefit of its mates.

Therefore let the old dog take these memorial words with it in its painless death. A Winchester bullet pierced its temple. I have just flayed it, and yet, whilst I am scribbling this in my diary, the strong, sickening smell of its blood clings to my fingers.

As shortly afterwards I go out to feed the dogs, I find that old Miteq had no significance at all as food ; there was no flesh on it—it consisted of skin and bones only. We therefore had to kill another two dogs—altogether five carcasses—to feed the rest ; for on all the slaughtered animals there was scarcely any nourishment.

It is a disgusting work, fit only for an executioner's assistant, to flense these animals, and that not least because they were good dogs which should have worked for us yet awhile if only we had been able to get on quicker to better hunting-grounds.

On the evening of the 26th, Koch's condition seems so much better that we dare to cross the fjord. We make ready to break camp, and a new report is deposited in Beaumont's beacon.

We have to give up the idea of letting Koch drive his own sledge, as I fear he has not the strength to do this ; it is hard and laborious work to drive the dogs forward, and the cannibal food which we offer them agrees so badly with them that they often vomit. Ajako and I therefore share the rest of Koch's team between us.

The dogs are so exhausted that we can hardly hope to be able to ride on the sledges, wherefore Koch sets out a few hours before the rest so as to get somewhat ahead of us. When later on Ajako and I set off with our melancholy animals, we leave this headland, which now stinks with the gnawed bones of dogs, with a sigh of relief.

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### WHITE WHITSUN

*May 27th.*—Slowly, slowly, we struggle ahead 2 kilometres to the hour, the dogs, with hanging tails, ready to drop whenever a slight ridge hampers the sledge.

For the first four hours we crawl along through a clammy fog surrounded by greyish-white thickness on all sides; nothing to see, nothing to steer by, like blind men we struggle along in the white gap, and the monotony makes our advance still more miserable.

Suddenly the sun appears as a huge white ball through the fog; in the zenith the sky bursts forth, breaking through the clouds like blue unfolding flowers; and now the sun follows up its victory, whilst the edges of the clouds begin to glow, and soon the close blanket of fog trembles under the beams of the great heater.

The white tops of the country round Cape May break through ahead, first the cone-shaped Fusjijama (Mount Hooker) and then the rest of Beaumont's Mountains, Mounts Coppinger and Farragut, still paddling with their feet in the fog; soon the ice bursts into transparent silver ribbons, hovering like narrow wisps of smoke over the lands, promising good weather.

And so the most glorious Whitsun weather drove in to Sherard Osborne Fjord with clear sky and calm warmth.

At five o'clock we had to stop, as the dogs could endure no more; we made camp, hoisted our flag, and commenced our day of rest. A festive Whitsun, with a solemn mood which the mountains and the white snow communicated to our minds. . . .

It is 10 degrees of frost (Cent.), but the feeling is that of a hot August day in Denmark, and with the warmth in our hearts which all this grand beauty generates we celebrate Whitsun according to our poor means.

We make tea, and drink it whilst we suck fruit-drops, and with the taste of red currants and cherries on our lips our thoughts involuntarily turn to home—the long, long way,





ATAKO AT BLAUMONT'S BEAVER



DR. THORILD WULFF, TAKEN AT THE TIME WE LEFT ETAH



A GENERAL COUNCIL

## SHERARD OSBORNE FJORD

almost across the whole globe, to the vicarages in Sealand, which in this moment lie like islands among the trees' green drifts and flowering fruit-trees. We sense the fragrance of flowers, we hear the songs of larks and nightingales, the contented lowing of cows in the meadows, and the happy laughter of merry people celebrating Whitsun in the shady beech forests.

And we sit here in an ocean of light which blinds our eyes, in the midst of the winter-white Arctic spring, with pure new snow round our feet, the sun-gilded horizon of the glaciers behind the russet mountains, and the cold, bound Polar Sea before us lonely, wandering explorers, with a whole world between us and our relatives and friends.

Yet we celebrate the day, and with a longing for the fertile south which has so often given nourishment to our thoughts up here on the skull of the world, we eat, materialistic as always, a tin of Mauna Loa, the only one we possess, tinned at Hawaii and exported from Honolulu; and as we see before us the dark-eyed, garlanded girls who picked the fruits, it is as if we cut through all horizons and conquer the world.

Hawaii and the Polar Sea, N. Lat. 82°!

So we cook the musk-ox meat from Nares Land, drink coffee from Java after the tea from the Congo, and smoke tobacco from Brazil!

A glorious Whitsun!

### TO CAPE WOHLGEMUTH

In spite of our efforts, we do not succeed in covering those poor 55 kilometres from Dragon Point to Depot Island in less than two days. We have had to drive slowly out of consideration for the sick Koch, who is as yet so poorly that he cannot manage long stretches in one run. It seems he cannot stand the complete diet of meat to which we up here are confined: during the marches weariness and sudden dizziness overwhelm him so that he has to lie down to prevent himself from falling. Fortunately, he takes his illness calmly, and, thanks to his young, strong constitution, he resists it so stubbornly that we are not very much hampered. He refuses all offers of a halt

## GREENLAND BY THE POLAR SEA

near McMillan Valley, and, as he himself is of the opinion that he is strong enough to continue, we take the shortest possible rest, as hunting conditions force us ahead as quickly as possible.

The hunting here has been successful beyond all expectations, but we must be careful lest the good result mislead us. For, after all, the ice-free country is only small in extent, so that only a limited number of big game will be found in the immediate neighbourhood, and the point is not to exhaust the district entirely. In all probability we shall return at some time, and we would have to pay dearly later on if on our outward journey we let things slide and did not offer a thought as to future emergencies.

Just behind Cape May we see six hares; two of them we shoot, whilst a cup of strong tea is made to give us strength for the last stage of the journey towards the little island where we have deposited two rations of musk-ox meat for every team.

There seem to be many hares here, but we dare not depend to any great degree on this game. The animal is too small and also too bony, and it does not go sufficiently far as provisions on a journey on the inland-ice.

The dogs scent our meat depot far away and we finish the journey at a merry trot, which is quite stimulating although one knows that the cause of the speed is an artificial one. For a moment we are seized by a nervousness easily understood when we discover that tracks of foxes lead to the depot. Fortunately, Reynard has been too careful, or perhaps not hungry enough, to attack the meat, which we find quite untouched. We can now finish our journey with a really solid meal which is as well deserved as it is necessary.

On our old camping-ground we find a hare swinging at the end of a long stick which has been rammed down in the snow. We run up full of curiosity to see if, maybe, other precious things are hidden in a tin placed on the same spot, and in which we find a letter from Dr. Wulff, who very funnily tells of his party's experiences during the time we had been separated.

## SHERARD OSBORNE FJORD

On the following day, the 29th of May, we reach Cape Wohlgemuth through the same heavy snow which we have hitherto met on the fjords; the downfall seems to be sufficient here, but little wind. In spite of the trail of our comrades, which is of great assistance to us, it takes us eleven hours to cover the distance of 29 kilometres. Here by Cape Wohlgemuth we celebrate this high-spirited name by giving our dogs the last meat we possess. During a short ski excursion we find on a ski-staff another letter from Wulff with the information that on this spot they have shot a musk-ox.

Next day at noon we reach our comrades, who receive us with storming shouts of welcome. They have again shot six musk-oxen, a heaven-sent gift for our hungry dogs.

Yesterday Harrigan tried to hunt in Nordenskjöld Fjord, but returned quickly, as he saw at once that the country was no good hunting-ground. He found everywhere tall, vertical mountain-walls; the few cloughs which ran across the great compact chains of mountains were stony deserts without vegetation. He did not go far inland, and we, who wish to keep as long as possible to the tracts marked on the old charts, are hoping that the fjord may be so deep that at its head we may find land and game.

However, one matter must be decided on at once. According to our original plan, a permanent headquarters was to be made by the head of Nordenskjöld Fjord, where the botanist of the expedition during our wandering life was to make his observations in peace. Hendrik Olsen, Harrigan, and Bosun were to remain with Wulff, and were to hunt in preparation for our journey homewards; while Koch, Ajako, and I were to cross over to the land of the big game and Nyeboes Glacier, and then via Independence Fjord go north of Peary Land, calling at Mylius-Erichsen's beacon on Cape Glacier, at Koch's beacon near Cape Bridgeman, and at Peary's beacon near Cape Morris Jesup. After the lapse of a good one and a half months the members of the expedition were to meet again off Nordenskjöld Fjord to start the return journey together.

But after Inukitsog's sledge journey in the fjord the plan

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of the botanic stations has to be given up, and we decide to divide the expedition into two parties, with the following tasks :

One hunting-party must immediately go northward to de Long Fjord to hunt for musk-oxen in the district northward up to Cape Morris Jesup. Dr. Wulff accompanies this party so that he may see as much as possible of the coast.

But Koch, Ajako, and I must go in to the head of Nordenskjöld Fjord, chart this, and then across the inland-ice go towards the hunting districts round Poppy Valley, then through Independence Fjord north of Peary Land.

All these plans were discussed in the best of spirits whilst our comrades tried to tickle the palates of us, the last ones to arrive, with every possible delicious morsel from the newly-killed animals. The subjects of our conversation seemed to be inexhaustible after our twelve days of separation, and as we had to go each in our own direction on the following morning, our meeting was a hearty one which I shall always remember.

### IN NORDENSKJÖLD FJORD—TIRED DOGS, NO HUNTING

Our position would be a serious one if hunting should fail hereafter, and we had yet a chance to run away from the fight and return home. For although there was yet the possibility of seal-hunting, which might provide us later on with meat, the chances in the midst of all this old Polar-ice were so uncertain that we could not be sure of success. On the other hand, if we were to save our skins by going southward now, our work would only be half accomplished, and no one approved of this solution of the problem. When we left we all knew the risks we ran, and the position was already now such that our lives were at stake in the accomplishment of our task. To my great joy there was not one of my comrades, neither among the scientists nor among the Eskimos, who for one single instant doubted what we had to do.

Everyone agreed that the expedition in the face of all odds

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ought to continue, and not one would give in until we had kept the promises made at the time when we left Denmark.

Through 1 metre of deep soft snow we drove slowly in the fjord, whilst our comrades set their course towards Cape Salor, where they expected to find a depot from Peary's time.

We did not succeed in penetrating the fjord more than 17 kilometres, and at this point, early in the morning, we camped off a broad clough which cuts into the country. Here Ajako tried musk-ox hunting. For eight hours he tramped across the country, but all he saw was stones, stones, and glaciers along all the mountain-tops. Not a trace of musk-ox or hare was found, not even ptarmigan seemed to live in this desert.

When he returned with his discouraging report, the fog settled thickly over mountain and ice, and there was nothing else for it but to settle down to wait and wait, with short rations for ourselves and nothing for our dogs. On the ice near the tent I found a dead lemming. It had walked across the deep snow from the other side of the fjord. The energetic and obstinate little animal appeared to have been wandering through the fog, as occasionally it had been walking in a circle, and had moved along in an uneven zigzag which showed plainly that it had lost its bearings. It was almost incredible that this small rodent, which is no larger than a fair-sized bunting, had managed to make its way through the deep snow, of which the upper layer was so soft that it had had to press its small sinewy body through a deep and assuredly most toilsome furrow. All its paws were skinned, and so torn that the toes were frozen together with stiffened blood. The snow had, presumably in the same manner as it happens with our dogs, stuck to the hairs between its toes; then it had made an effort to try to cleanse them with its teeth, so that it had torn both hair and skin away. In one foot it had a deep wound which it must have inflicted on itself, and the consequent loss of blood must have occasioned its death.

The Eskimos, who admire the unusual qualities of the

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lemming, its courage, its endurance and stubbornness, say of it that it possesses the chest of a man, the beard of a seal, the feet of a bear, and the teeth and tail of a hare—a characterization of its appearance which is very striking.

On the 2nd of June we must kill another four dogs, as we are continually unable to find food. Ajako and Koch now drive a team of ten dogs and I drive one of seven; and although this is yet a fair number, we need to be careful not to kill many more for the time being. For if we are to drive and not to walk on the return journey, with our collections and the food for our dogs, we ought to have four sledges with seven dogs in each team. The six musk-oxen which were killed by the mouth of the fjord provided only three meals a team for our forty-four dogs. We therefore decide to leave two rations at our old camp, so that we shall not be quite without dog food when we return later on to cross over to Chip Inlet.

In spite of the unfortunate hazy weather which we have had, we have succeeded in examining Nordenskjöld Fjord, for a fresh breeze has now and then lifted the clouds aside and given us the necessary view. The nature corresponds on the whole to what we observed round Victoria Fjord. The surrounding land, with the exception of the quite small and barren brim along the shore, is covered with glaciers; and the fjord, which ends in broad inland-ice, but behind which one can discern Nunataker, is hardly more than 20 kilometres long. The extent depends somewhat upon one's decision as to where the ocean-ice proper is relieved by floating inland-ice. Five or six kilometres inside our camp a big bank of ice-mountains shoots right across the run, so that the passage is entirely blocked. As these ice-mountains to a height of from 3 to 6 metres stand closely by the main glacier itself—with deep snow in all crevices and apparently being moved by the glacier just as is the floating inland-ice in Victoria Fjord—one may decide that the real fjord ends here. These ice-mountains make the passage further ahead impossible. Thus no accession to the inland-ice is possible from this point, and it follows as a matter of course that we must give up every thought of pushing through to Inde-

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pendence Fjord. We can find neither the road nor the provision for this purpose.

As soon as Chip Inlet has been explored, we must speedily set off after our comrades and then, later on when de Long Fjord has been charted, set the course south towards the seals by Dragon Point.

Our geographical discoveries have been very interesting up to now, and it is already obvious that the relation between inland-ice and coastland should be marked out in an entirely different way for that part of Greenland which we have now traversed. We find everything is glaciated to a far greater extent than we expected, and although of course it is the task of every expedition to bring home as much new information as possible, I cannot deny that, for our own safety's sake, we might have wished for fewer corrections of all the lovely extensive hunting-land which has up to the present been marked down on all the American maps.

Again to-day we see a lemming attempting to cross the fjord. It comes from the elough close by our camp and stubbornly sets its course where the crossing is at its broadest. In comparison to its size it shoots ahead with dazing speed, swimming through the snow with queer jumps. Occasionally it disappears entirely in a tunnel to shoot up further ahead like a dwarf seal coming up to breathe. With its weeny size and its phenomenal energy, it seems paradoxical in these enormous surroundings which swallow it up.

One of our dogs scents it and rushes up so violently that the traces break. In the same instant a cloud of snow whirls up round the trail of the little wanderer; for a few seconds yet the lemming fights its way ahead, then suddenly it is flung high up in the air to disappear still alive into the mouth of the dog.

## CHAPTER VI

### THE CAMP BY THE OWL'S NEST

#### THE FIRST WANDERING IN PEARY LAND

**J**UNE 4TH.—We had no other choice but to get away from Nordenskjöld Fjord as quickly as possible. A hunting expedition across the ground where Hendrik and Bosun had shot their musk-oxen gave no result ; we merely made the acquaintance of a stone desert which gave no promise for the filling of our meat-pots, and close behind the mountainous coast lay the inland-ice. As the weather appeared to be clearing up, I decided to go in along Chip Inlet. The fjord had to be charted, and it would be as well to get it done on our outward journey. Also, at a distance the land looked good ; the mountains had even slopes and many cloughs seemed to cut into the land like valleys. We therefore set off in spite of the discouraging haze. The fog lasted obstinately all during our day's journey, until we were quite near to land ; then the clear sky slowly began to break through, with rich promise for the day from which we now expected so much. In the forenoon the sun at last conquered the raw thickness.

A cold, snow-white, mountainous land lay before us in full winter dress, but brilliantly beautiful with cone-shaped mountains, big cloughs, and sloping foreland. No glacier covered the land ; here was at last a piece of Peary Land which seemed to promise good hunting.

But pushing ahead was slow work. We had to walk the whole way, two men by the sledges and one in front, and thus twelve hours elapsed before we had covered the 31 kilometres to the point which we found convenient for making our camp.

## THE CAMP BY THE OWL'S NEST

We cooked a panful of porridge and a cup of tea, whereafter Ajako and I at once went into the country ; out of consideration for our dogs we could not nurse our own weariness. On snowshoes and with each our own dog, we went into the mountains along the sloping fells.

It was at once evident that we were in Peary Land, for such fertile oases we had not seen before. In some places we found thick, lush grass, not merely the miserable meagre tufts to which we were accustomed. Everywhere Polar willow grew abundantly, and poppies, saxifrage, and cassiope, but everything is yet withered with winter. Here is at any rate plenty of fuel, if only we can find something to cook. At the beginning of our expedition we shot a couple of ptarmigan and gave them to the hungry dogs, which were helping us on our hunt for musk-ox.

We followed the slope of the mountains along the fjord and soon found excrements of musk-ox, but all very old. Probably the snow is too deep this time of the year. Ptarmigan we saw in abundance, but decided we could not afford to spend ammunition on them.

On a steep, picturesque brink leading down towards a clough we discovered an owl, which was apparently sitting on its eggs, for hardly had we discovered it before another owl, which we had not seen at all but which sat not far from the first one, began to detract our attention from the nest. First it ran along a big snowdrift, but as we did not let ourselves be deluded, it flew up and began circling above us, anxiously hooting and apparently very nervous as we approached its mate. As we continued our walk undisturbedly, however, it became downright impudent ; high up from the air it would throw itself with lightning quickness down at us, rushing at our heads with such tricky violence that we had to defend ourselves with the butts of our guns. Then it shot up in the air again, circling for awhile above us, to fall down once more right on our heads. Its manœuvres were sudden, silent, and incalculably swift, and when it passed right in front of us its strong

## GREENLAND BY THE POLAR SEA

beak whizzed past our eyes, and we had to duck to protect our faces from its outstretched claws.

On the utmost point of the brink we found a primitive nest containing nine white eggs, not unlike hen's eggs but somewhat smaller and rounder. The nest, which was very simple, consisted of a depression of the soil with a little grass at the bottom. We left them in peace, to the great surprise of the male owl, which was only accustomed to fight against ermine and wolf, which know not mercy.

Some distance further ahead Ajako shot two hares, whereafter we parted to hunt each in our own direction. I climbed the mountains to obtain a view, whilst he continued right ahead.

The mountain I ascend is a slate-stone mountain 40 metres high, black and cone-shaped, with crumbling stones which provide a poor foothold. When at last I reach the top I obtain a view which nearly takes the breath away from me. I have to rub my eyes before I dare to believe in the reality of that which I look upon. Before my feet, in along the fjord, I discover a whirlpool with a couple of floating ice-mountains.

An arm of the fjord, only 2 kilometres broad, cuts into the country, first in the direction of north-west towards Mascart Inlet, to which it seems to send an arm, later, turning north and north-east in the direction of de Long Fjord, it is lost among the mountains, where I cannot see its head. But the circumstance that here, in the middle of a Sikûsâq fjord, nearly at N. Lat.  $83^{\circ}$ , we came across an opening in the ice, points to the probability that this narrow branch must be part of a channel which either runs out into Mascart Inlet, or probably into Jewell Inlet. There is a very strong current in the open water. From the high ground on which I stand I can plainly discern vortices. And the main direction runs towards Chip Inlet. On the firm edge of the ice I discover to my surprise and joy two seals, and in the snow the depressions of a third which has just gone down.

This surprising discovery opens up unsuspected possibilities.

The land itself is ice-free in all directions—*i.e.*, without a connected glacier; merely an occasional local tongue of a glacier

## THE CAMP BY THE OWL'S NEST

shoots from the summits down into the many cloughs which intersect the mountain. But everywhere one sees deep snow.

The head of the main fjord is plainly visible about 30 or 40 kilometres inland from our camp, and only now it becomes clear to me that it is an entirely new fjord we have discovered. Chip Inlet was not very long, and was supposed to run parallel with Nordenskjöld Fjord, but this fjord does not exist at all. But north of Nordenskjöld Fjord a large new fjord cuts eastward for about 50 kilometres into Peary Land. Near its head a big mountain is discerned which crosses the run and merges into the inland-ice. Whilst the south-west side of the head of the fjord is thus directly connected with the main glacier, large snow-covered but apparently ice-free stretches of land spread out in the direction of north-east.

When Ajako and I meet again our faces beam with joy over the great discovery we have made ; but for the moment we are, of course, most interested in the opportunities which this unexpected whirlpool with its seals offers us. Provided the ice near the edge where the seals lie is not eaten into too much by the current underneath, we have here the possibility of a welcome store of meat. But as seal-hunting brings the best result during the warm sunshine of noon, we postpone for the time being the hunt, taught by our sad experience at Dragon Point, where the seals, I do not know for what reason, were very timid. So we return to our camp, with no other catch than the two hares.

Of fresh musk-ox tracks, or merely of year-old excrements, we saw none ; the signs of life we ran across appeared to be several years old. But it is possible that musk-oxen are to be found still further in along the fjord, and these regions are to be explored as soon as we have had a rest. In the meantime we have been in incessant activity for over thirty hours. We ran across lemming holes everywhere, and also ptarmigan, which in couples celebrate the mating season with a lively cackling.

By midnight we are once more back in the tent. Again

## GREENLAND BY THE POLAR SEA

two poor dogs have to be killed to provide food for their mates ; they give a poor meal with scanty nourishment, but nevertheless they constitute "some belly-fill," to keep life in those which have to push on.

### WEATHER-BOUND IN A SNOWSTORM

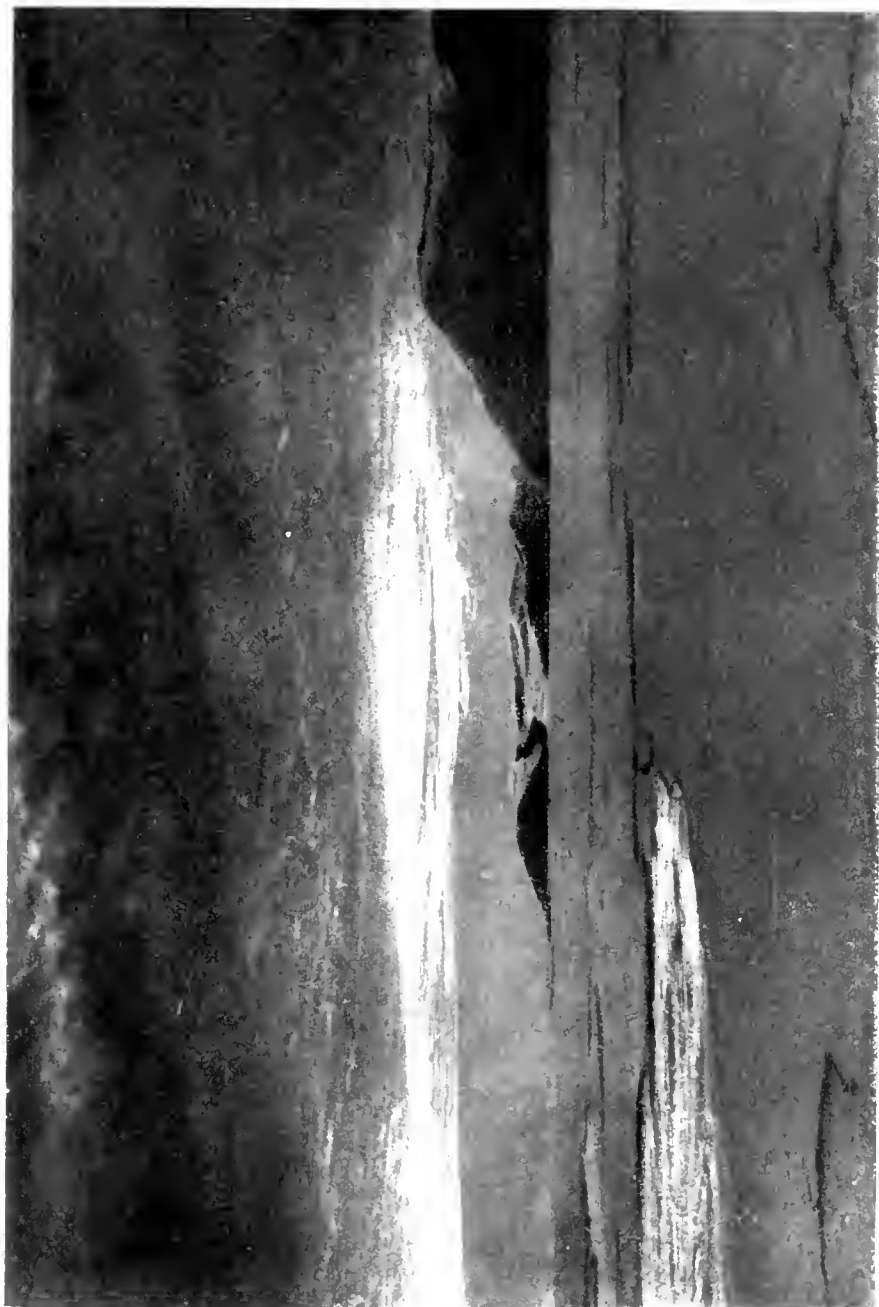
I have not been in the mood for scribbling in my diary, and during the last two days I have kept exclusively to meteorological observations, which four times during night and day pleasantly checks our time.

The weather and the bad state of the ground persecute us systematically. There is snow in abundance, through which we must toil our way ; on the last journey we found snow up to 1 metre deep and had to put skis under the runners of the sledges. The loose snow which freezes into balls under the paws of the dogs treats them much worse than does hunger ; in their attempts to cleanse their painful paws, which may be so full of hard ice lumps that the toes become quite distended, they bite, like the little lemming I recently described, big bleeding wounds in their paws which leave a trail of blood in the snow. This affliction is the chief reason for the difficulty we have in driving them ahead, and it quite unnerves them.

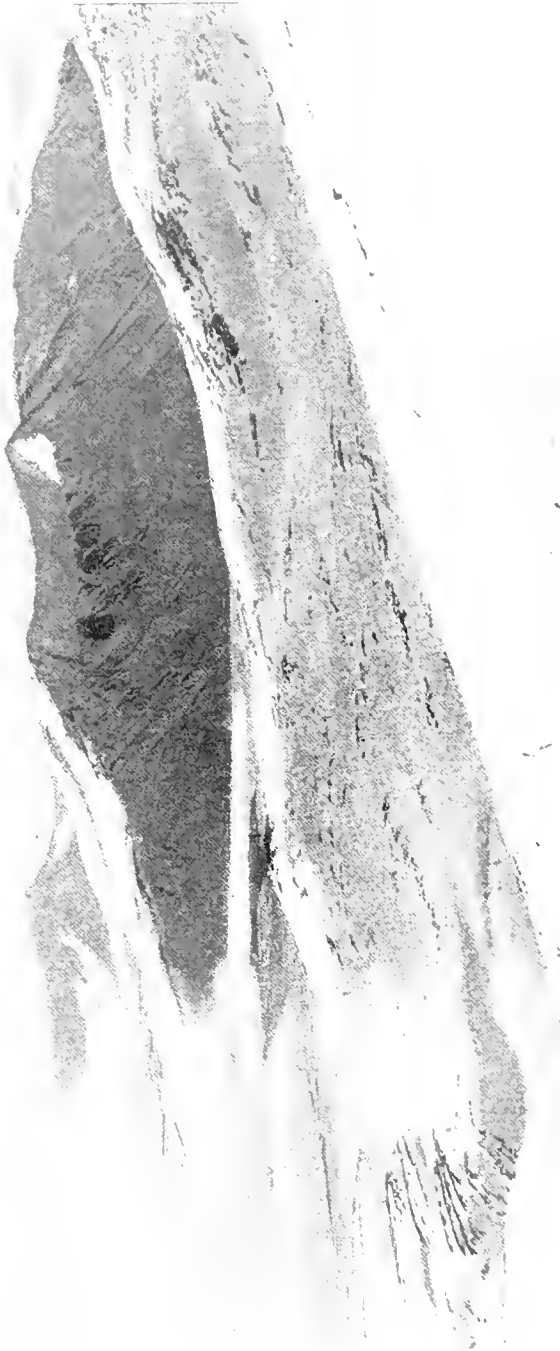
And now travelling conditions are to be still worse ! The snowstorm begins on the 5th, and on the 6th it rages with increased violence : and the snow gathers in big, deep drifts where the sledges will stick when we have to continue our journey.

There is nothing for it—we must, like the little saxifrage which sometimes winters in full bloom, sleep everything away and let the storm pass over us as if we did not exist ; later on we shall have time enough to face its consequences.

On the 7th of June the storm seems still on the increase ; the snow whips against the canvas of our tent, the squall threatens to tear it to rags. Our ten still living dogs are lying outside in the snow, and they seem to have a difficulty in reconciling themselves to all this adversity. We dare not kill any



CAPE WOLLEGE METER



VIEW TOWARDS THE WHIRLPOOL IN J. P. KOCH FJORD: THE PLACE WHERE THE BARNACLE-GEESE FLEW PAST OUR TENT, WHICH LIES HIDDEN NEAR THE OCEAN-ICE



## THE CAMP BY THE OWL'S NEST

more, or we shall be left without effective teams. Hunting in this storm is unthinkable.

### TENT DUTY WITH SENTIMENTS FROM DENMARK

At last! At last the sun had mercy on us and appeared with a clear blue sky, quite early in the morning. About two o'clock we dug ourselves out from the tent and made our preparations for the hunt, and for a reconnoitring expedition which Koch and Ajako were to undertake. We were lying deep in big snowdrifts, so that only the ridge of our tent was visible; it was like mid-winter and nothing around us bore witness to the fact that we were already far into June, the loveliest and mildest of all the summer months.

Nothing could be seen of our sledges. Only the points of the uprights stuck out, and of the dogs merely the contours of their bodies could be suspected in the snow. Their quietness was uncanny and showed, unfortunately, that not one of them had spirit enough left in it to gnaw at the traces, or to go out robbing between the sledges and the tent. They had given up entirely and were now trying merely to keep warm, rolled up in a ring with heads buried between legs and tail.

At four o'clock Koch and Ajako set out. I had to remain keeping watch over dogs and tent; the latter would be torn to strips if under these conditions the dogs were left without control for a day. Fain would I have exchanged yet another night and day of inactivity for my comrades' lot; but someone must do the miserable job.

For a long time I stood in the drifting snow looking after my departing friends. Koch was to chart the inner reaches of the fjord, whilst Ajako hunted in an attempt to save the sad remainder of our dogs.

At an even march they go in along the fjord, where stormy clouds are yet drifting round the thunder-split peaks. One of them is on skis, and slowly they glide through the loose new drifts. Ajako, the undaunted hunter whose straight back and lithe movements plainly reveal that he has not yet given up

## GREENLAND BY THE POLAR SEA

hope of finding big game, is in appearance not unlike the wolf-dog which he leads at the end of a trace. Like his dog he is light, with tense muscles, hardy and used to starvation. By his side goes Koch—broad of shoulder, strong of build, tough, and showing the consciousness of his strength in the swing where-with he walks, like a young Great Dane.

Good hunt, oh wolves! Never have warmer wishes accompanied two wanderers; for to-day is the day! The great seriousness is over us and our fate.

Whilst I stand here weighing our chances, with the raw blast in my face, my thoughts go out to the other party which has endured the same weather as we. May they have had more success on their hunting before the storm overtook them and put its seal on the land.

Opposite to me a couple of ptarmigan are sitting cooing caressingly to each other. Their coat is quite brown, and they sing about the summer that should have been. Their cheerful presence is stimulating and makes one forget the unpleasantness of the storm-rushing clouds.

Occasionally they look enquiringly at the tent and the man at its entrance; but there is no cause for their anxiety—they may safely coo for me all through my lonely day. I cannot afford to spend a ball on so little meat, and our shot-gun and its ammunition was deposited for the return journey by the mouth of Nordenskjöld Fjord.

My day will to-day be stamped by excitement, but it is excitement of the kind which one should not feel too frequently during an expedition.

For the first time during a long period there is a positive temperature, 1·2 degrees of warmth (Cent.). There is a dead calm and hardly a cloud in the sky. Whilst I wait in the mild weather I am tempted to kill time by writing.

It is now six o'clock in the afternoon, thus it is fifteen hours since my comrades left. They were to return immediately if they caught a seal by the whirlpool on their outward journey, and their absence is therefore not a favourable sign.

## THE CAMP BY THE OWL'S NEST

I feel as if I were on a redoubt, alone against fifteen.

The dogs are raging with hunger ; nearly all of them have bitten themselves loose from harness and traces, and are repeatedly attacking the tent, where a small piece of boiled meat is still kept. It would have been an uneven fight, had not experience given them a respect for the whip which they know that their beloved master has always ready to hand. They have suffered through the snowstorm, but this would not have meant much for a wolf-dog if recently they had not so often been given flabby dog-flesh instead of real food. It is for this reason that they are now so desperate and threatening, and they would surely throw themselves over me if only they dared. They express their suffering in very different ways. The nobler natures amongst them are no longer greedy and offensive ; their eyes have taken on a singular forsaken and melancholy expression ; they keep away and seek the snow-bare patches of ground, where they try to let the warmth of the sun ease the pains of their empty stomachs. The plebeians amongst them, on the contrary, have got an evil expression in their eyes ; they lay siege to the tent and approach the entrance whenever they think they can take me by surprise.

Poor animals ! But what else can we do for them but to walk ourselves half to death into the country on hunting tours which last for days. We really do not save ourselves !

The day goes slowly, and I often seize myself in the belief that my watch has stopped. In vain the ptarmigan try to cackle some relief into the monotony.

A couple are cackling to each other warmly and tenderly of the nest which they are going to build. Their gurgling gutturals remind me of a bull-frog's croaking in the ponds of Sealand. I forget where I am, and my thoughts go back to the garden of my father's vicarage, where so often I have listened to these remarkable frogs, whose clear, bell-like tones from the deep mud of the pond could fill the air with harmony in the cool Danish summer evenings.

A mild breeze wafts the fragrance of the wild roses of the cemetery wall towards me, and many old memories revive, so

## GREENLAND BY THE POLAR SEA

that in the midst of ice I live over again that which once was. I see my dear old mother coming from the strawberry-beds, her apron filled with big red berries; as usual, she picks out the biggest and gives them to us, and it is as if the flavour is doubly sweet and precious when one knows that every one of them has cost her pains in her old back as she bent down to pick them. And I hear my father's firm, somewhat heavy tread between the trees of the garden. He takes his evening walk, stopping frequently in front of the fruit-bushes, the growth and thriving of which he follows from day to day in his dear garden. Now and then there is a sound of the balls from the croquet-ground. The cool evening breeze sighs round the great lime-trees, while the white fruit-blossoms float down on to the garden paths.

During the heat of noon the first wingèd sign of summer comes to me as a couple of bluebottles buzzingly break into the tent and circle round that innocent little piece of meat which so vigilantly I watch over. Three curious gulls sail across our camp on pointed wings, to disappear towards the whirlpool; and when I add that a couple of small buntings have also tried to keep me company during the day, I have finished my day's biology.

In the quiet, mild weather the sun quickly melts the snow.

At eleven o'clock in the evening Koch returns to the tent after his twenty-five hours' walk. No game has he seen. His discoveries fully confirm my observations of the other day from the black slate-stone mountain. We are in quite a new fjord which has nothing to do with Chip Inlet, and which has not been visible from the route which has previously been followed. We agreed to call this fjord I. P. Koch Fjord. Neither is to be found the great island, marked down inside the mouth of Chip Inlet; in its place we have a tall mountainous peninsula which, with no less than sixteen glaciers, shoots out between Nordenskjöld Fjord and I. P. Koch Fjord. The land north of the fjord and to the east is partly ice-free, but it consists of wild alpine landscapes where one cannot hope to find musk-oxen.

Ajako has gone further into the fjord, and at nine o'clock in

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## THE CAMP BY THE OWL'S NEST

the morning he has not yet returned. But as long as he remains absent we keep on hoping.

Heigh!!!

At nine o'clock on the 9th, after thirty hours' hunting, Ajako returns to the tent; he has shot two seals by the whirlpool, and three hares. The hares he carries on his back, but the seals he has left, as it will be more practicable to move our camp nearer towards the whirlpool.

Our joy over this report is so intense that we feel as if warm waves beat through our bodies, and we cannot prevent ourselves from shouting meaningless words. There is now a hope that, at any rate for the time being, we can keep part of the dogs alive; and it is not unthinkable that we may succeed in shooting still more seals. Ajako has been far in along the fjord, where he has found some old excrement of musk-oxen; but everything points to the probability that these animals many years ago left this district, which they have probably passed on their way eastward. Furthermore, he has seen an owl brooding, and a white fox eagerly hunting fat lemmings.

The beautiful weather has tempted a lot of Arctic gulls towards our little camp—they sail above our heads or sit on the hummocks along the mountain slopes, from which places they hail the returned hunter with shrill, merry cries.

## GOOD DAYS BY THE WHIRLPOOL

The camp is now moved a few kilometres further in along the fjord, so that from our tent we may have a convenient view of the little whirlpool which temporarily will be our larder.

*June 10th-13th.*—Unfortunately both Koch and Ajako are taken ill again. Koch has nausea and has felt dizzy after the long walk of yesterday. His stomach will not stand the everlasting diet of meat which we have to live on; occasionally he is given a little oat-porridge, but as we have to economize strictly under the uncertain conditions life offers us, it is unfor-

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tunately impossible to let him have the daily ration which his constitution seems to claim.

Ajako has overstrained his eyes in the sharp light during the long hunt, and has again gone snow-blind. So, as soon as the tent is raised, I leave my comrades and drive to the pool to fetch Ajako's seals. It is beautiful and quiet weather, and the warmth has again tempted a couple of seals to take a sun-bath. One of them is, unfortunately, very shy and dives down long before I get within range; but I succeed in catching the other. We are now on top again, for as we have so few dogs left, these seals, with their profusion of blubber, will see us through for some time.

Our cup of joy is, as usual, not unmixed with bitterness, as it appears that some serious illness is breaking out among the dogs. The hind quarters of some of them are becoming paralyzed. This may be a consequence of the cannibalist diet with which they have too often to be satisfied. Dog-flesh seems to contain some poison; at any rate, the liver and intestines contain something which does not agree with the dogs, for after devouring it they frequently vomit, and during the day they are limp and weak and have pronounced diarrhœa. Two of them have already been killed, as we cannot hope for a speedy recovery.

Yet another matter is troubling us: We have great difficulty in making the dogs eat sufficient food. The blubber, which is so good for them and at which in the beginning they rushed with such greediness, they will not touch at all now. This, however, has nothing to do with the disease, but is well-known by everybody who on long journeys has had to starve his dogs for periods. When at last one arrives at a place where there is food in plenty, the dogs eat only a few good meals, and after that they turn so finicky that they will only accept solid meat.

On the 11th of June Koch feels somewhat better, and immediately goes out into I. P. Koch Fjord to complete the cartographical work which he began.

On the following day he is again tired and unwell, and as



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Ajako constantly suffers from pains in his eyes we decide to remain here for another few days, although it is desirable that we should catch up with our comrades as soon as possible.

After this numerous seal-hunts miscarry; the few animals that have their home by the whirlpool are so shy that they disappear as soon as we show ourselves. So in the forenoon of the 14th we agree to break camp and continue our interrupted journey.

During the night we are aroused by barnacle-geese, which two by two fly across the tent in flocks, to settle down on the grassy slopes. For a long time their cries vibrate with a fresh, promising sound. There is always adventure in the boom of a wild-goose flight, when on their broad wings they disappear beyond the horizon.

### TO CAPE SALOR

*June 14th-15th.*—We had long been looking forward to the day when our work here should be finished, so that with a good conscience we could set our course towards Cape Salor on the northern extremity of the great island off the mouth of Chip Inlet. McMillan had promised us that we should there find one of Peary's depots from his last Polar expedition, cached in 1908, and consisting of pemmican, biscuits, sugar, and paraffin. These were tempting delicacies.

We start at eight o'clock in the evening and, as for the first time during a long period going is good, we succeed in making the 40 kilometres to Cape Salor in twelve hours. We halt east of the cape, right opposite to Cape Emory, where we expect to pick up information from Wulff. It is baking hot, the temperature being the highest we have yet experienced. In 2 degrees of heat (Cent.) we half-strip, after which Ajako and I set out for the depot, which should be about 4 kilometres distant from our camp.

The sun scorching our faces. On the ice the snow is melting and has already formed pools of more than a metre depth in the old Polar-ice. Dripping with perspiration we reach the depot, where a tin box, hanging down from the end of a staff, contains

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a greeting from our comrades. Right off us there is a pressure-ridge of about 20 metres; outside this the ice is smooth, whilst the pressure-ice of the old Polar-ice commences already a few kilometres seaward. Along the ice-foot there is an old track of bear.

The depot proves a disappointment in so far as we find only three cans of paraffin and six tins of pemmican.

To our surprise, we find excrements of musk-ox also on this island, which almost entirely consists of high, rugged mountain-land without a trace of valley tracts. The musk-oxen, then, must have been here only temporarily. Three barnacle-geese come flying from far out on the Polar Sea, and on land the ptarmigan are cackling.

We are back again in the tent at eleven o'clock, gourmandizing to our hearts' content on Peary's pemmican. This Polar pemmican, in contrast to the sort with which we are acquainted, has a wonderful addition of lots of raisins and sugar kneaded into the meat and fat, so that it has the consistency almost of a sweetmeat; at any rate, no marzipan cake could have tasted better. For the sake of economy, we mix it with porridge, and boil it into a thick gruel, which settles down in our stomachs with an unusual, but not uncomfortable, heaviness.

Wulff's letter, which is as usual a welcome sign of life in our monotonous treadmill round, goes from hand to hand and gives rise to much discussion and conjecture. We then snuggle down in our sleeping-bags, relishing for the first time outside our tent the unusual summer warmth. We close our eyes after a journey of thirty-six hours.

But our food has been heavier than our customary meals of hare; our sleep is restless and we frequently wake up.

## CHAPTER VII

### CAPE SALOR TO LOCKWOOD'S BEACON

#### OUR MEETING WITH DR. WULFF'S PARTY

**J**UNE 16TH-17TH.—We now press forward in order to overtake our comrades as soon as possible. We have no time to wait for the coolness of the afternoon, but set off in the sun-warmth of 9.30 on fair ice. The dogs have benefited from the rest and the fat seal meat; with the light sledges they go a good pace if one of us will only walk in front; and so that we may make as much as possible of our opportunity, we decide to try another day's journey of at least 40 kilometres.

After two hours we pass Cape Emory, which juts out in a comparatively low headland with a cleft rich in vegetation, where Ajako shoots a hare and catches a litter of young ones. The surrounding country is an impressive alpine landscape which, snow-covered, precipitous, and with jagged pinnacles, trends in to a narrow fjord.

In a little bay a few kilometres from Cape Neumeyer, we suddenly spy two sledges; we start with amazement and almost lose our breath with excitement when we discover that it is our comrades, who, with a much reduced team of dogs, slowly, very slowly, work their way towards us. Wulff and Harrigan walk in front, whilst Hendrik and Bosun trail behind with the sad remainders of the three teams. We put on extra speed and it does not take many minutes before we meet. It is obvious from their thin, worn faces that they must have had a hard time since last we saw them.

They have hunted in vain for sixteen days, and during this long period they have had to feed exclusively on dog. They

## GREENLAND BY THE POLAR SEA

are now fleeing for life southward, as it has been impossible for them to reach de Long Fjord. They had been obliged to reduce the number of dogs, and were now driving one team consisting of five dogs, with their baggage wrapped up in a seal-skin. The other team of nine dogs was yet able to pull a real sledge. Of the twenty-seven dogs which, distributed among three sledges, left Cape Salor on the 2nd of June, only fourteen remained.

They had made their headquarters at Low Point and continued their hunting excursions from this point right across to Cape Wykander; as, however, they had seen not the slightest sign of musk-ox, they had returned so that they might save the last of the dogs for the homeward journey. They had taken our long absence to indicate that we had succeeded in crossing the inland-ice to Independence Fjord, and as it seemed obvious that they would not be able to find food for the long period of waiting which this would necessitate, they had decided on the homeward journey whilst they were yet in a fair condition and had some of the dogs left.

Considering the bad luck they have had, nothing could be said against this decision; one must act according to one's own judgment under such desperate conditions, and the different parties of an expedition must always, within certain limits, have a free hand so that one does not run the risk of losing everything out of consideration for agreements when presuppositions prove to be incorrect. For all that, I was glad to meet them and to prevent their lonely homeward journey.

We then made camp, and discussed the position during a feast of seal meat, hares, and abundant coffee.

It was essential to my plan that everything must be risked in order to push on along the coast where our comrades had been defeated; when so near to our goal, I could not decide to give up and start the homeward journey without having convinced myself personally that progress was really impossible. On the other hand, we must not wantonly attempt something which would be disastrous for the whole expedition. Furthermore, the prospects of what one might meet northward were so dark,

## CAPE SALOR TO LOCKWOOD'S BEACON

that I could only continue if those of my comrades, who necessarily must accompany me, volunteered to make the attempt. Once more I experienced the joy of seeing how serious they considered the task which we had set out to accomplish. Koch and Ajako immediately declared themselves willing to accompany me, and as I, provided we should have to lose yet more dogs, wished to have two men by each sledge, we strengthened our party by Bosun, who was not afraid to return to the coast where he had recently been starving.

So we decided that Dr. Wulff with Harrigan and Hendrik should make an attempt at getting their dogs down to the seals of the whirlpool. Provided we did not meet with too great difficulties, both parties might then meet in about a fortnight at Cape Salor. Failing this, Dragon Point was decided on as the place where we should all meet before the commencement of the return journey. After this we parted.

During the halt we had had high, sunny weather; but now our mortal enemy the fog once more sneaked in from the Polar Sea, raw and cold, drifting across all the land which we were to survey. We became suddenly miserable and desolate, not least because of the prospects which, according to our comrades, we must reckon on when we move eastward. It was hopeless to continue the journey whilst the visibility was so poor, and we made camp at ten o'clock in the evening between Cape Neumeyer and Cape Bennett.

It seemed well worth while taking matters easy and ruminating on the decisions which had to be made. Our position was really a very serious one. Of provisions we had merely a piece of seal meat and about a whole sealskin of blubber. Our dogs would not be able to stand an immediate period of starvation, neither could we reduce their number if they were to pull the two sledges.

As if to intensify our despondency, the barometer fell incessantly and did not promise well for the weather we might expect. Whilst the others were asleep, I sat thinking about our position.

Would it be possible to push along the path which had cost

## GREENLAND BY THE POLAR SEA

our comrades half their dogs? I was ready to give up the idea of reaching as far as Cape Morris Jesup or Cape Bridgeman, which had been my goal the whole time. But de Long Fjord? How very, very reluctantly would I relinquish that hope! It would be with a heavy heart that I, after all I had staked on this expedition, would go home without having been able to carry through my programme. The great main fjords and the north coast were now charted; and dearly we had paid for that work, because of the scarcity of game, and because of fog and deep snow. And now de Long Fjord? From our present camp to that field of work the distance is only about 100 kilometres, but if we do not get any hunting we shall probably lose all our dogs.

At five o'clock in the afternoon I make tea, and call Ajako and Bosun, who have both slept soundly, refusing to be disturbed by uncharted fjords and much too uncertain future possibilities. I consider it my duty to make the position clear to them, and to point out what significance it will have for the expedition if they succeed in procuring meat in this place.

The fog yet lies across the mountain-tops, and the barometer continues to fall, steadily and inconsiderately; but a light breeze has lifted the haze somewhat, so that the ice and the foot of the mountains are visible, and I send the two plucky hunters out.

*June 17th.*—At two o'clock in the morning of the 17th they return, Ajako with a giant seal, Bosun literally dressed in newly-killed game, with one goose, three hares, and eight ptarmigan.

Once more we are saved from a serious situation. Never has booty been brought to our tent which had such a decisive significance for the result of the expedition, and I am filled with happy gratitude to the fate which has so kindly favoured the two young Eskimos in this desert, where the others had to give up.

Without risking too much, we may now continue our push towards de Long Fjord, and we furthermore cache two or three meals for each team on this spot. We celebrate our good

## CAPE SALOR TO LOCKWOOD'S BEACON

fortune with a mighty feast, in which the dogs take a generous part; then we decide to set off in the evening of the same day.

The Polar-ice, closely packed against the coast, has begun to develop casual lanes, approximately 4 kilometres from land; it was by one of these lanes that Ajako had found his seal, which, as usual, was remarkably shy.

## TOWARDS CAPE MOHN

*June 18th-20th.*—Cape Neumeyer is—at any rate in the weather we have had—an unusually depressing cape; it possesses occasional little valleys where a chary growth of grass enlivens the visitor; but apart from this all is stone and stone, which not even by their shape enliven the traveller. We have spent our most intense hours in this place, but other men also have crossed this point with death at their heels. It was here that Peary on his Polar expedition in the spring of 1916 tried to land when, starting from the northern extremity of Grant Land, he had been driven out of his course by a strong eastward current.

I look across the pressed-up and difficult Polar-ice where a way had to be hewn for the sledges through the ridges, whilst hungry men, living on raw and frozen bits of starved dog-flesh, toiled towards the coasts where also we had found it difficult to exist. It brings to my mind my friend Manigsssoq, who on this journey had his eyes frost-bitten and was marked for life. In vain had he tried to keep up with his comrades, who in longer and longer days' journeys struggled for life as they neared Grant Land, where the ship and salvation was to be found. When at length he could manage no further, he was left in a cold snow-hut with the frozen leg of a dog for his only food, and here he fought alone against incipient frost-bite for days, until a relief party from the ship reached him and restored him to life.

With our gipsy-like temperaments, and on the strength of yesterday's catch, we were now in the happy position of being able to ignore for the present the conflicts of life which might here arise. "Forward," which was our watchword until the

## GREENLAND BY THE POLAR SEA

goal was reached, again sang through all our being. The weather was bad, showers of wet snow drifted over us, and the going was heavy and miserable. All through the day we labour ahead through the showers, which for hours rob us of any view; but as we have no time to waste, we wade stubbornly through the snow. When occasionally the thick weather eases, the most beautiful landscape is unveiled before us; in Mascart Inlet we are everywhere surrounded by high, cone-like, snow-clad mountains, furrowed by many clefts which create life and change in the monotony. At the head of the inlet we see the place where the channel of the whirlpool runs out, and in this we find the solution of the problem of the open water, which in the beginning puzzled us.

Out in the middle of Mascart Inlet we meet with a depressing sight. On a high hummock of ice we find the sledge which our comrades had had to leave. Poor litter of various kinds is deposited by its side to lighten it, but the most pathetic sight is the carcase of a poor dog which had tried in vain to follow the tracks of its masters from Cape Payer, to reach exhausted this sledge where nothing eatable was to be found. Summoning its last strength, it had crawled up on the transom, where on our arrival we found it dead.

The storm seems constantly to grow worse; the squalls of wind whip our faces with wet snow; and as at last our clothing suffers too severely, we have, much against our will, to pitch our tent already by Low Point. Here we find our comrades' camp of starvation, which does not need commentaries; strewn about were the bones of the many dogs which had had to die to be eaten by their comrades and the four men who, in spite of their persistence, were unable to find sufficient food.

From the top of a small mountain we discover, rather close to land, a small seal which has crawled up onto the ice in spite of wind and weather. It is on good ice and the mere sight of it makes us imagine that we have already skinned it and put it in the pan, for none of us doubt but that, in the course of an hour or so, it will be our prey. We soon find, however, that it is an animal just as fond of its life as are the rest of us;



## CAPE SALOR TO LOCKWOOD'S BEACON

furthermore, it is an expert in the art of teasing. As soon as we approach, long before we can get within range, it dives down through its breathing-hole; but hardly have we turned towards land before it crawls up again, repeating this comedy every time we continue the hunt.

We cannot understand the reason for the seals being so uncommonly shy here, where no hunting takes place. The fact that they are very few in number may probably sharpen their attention towards every unusual sound, more so than in other places where they gather in greater numbers; and up to this time we have merely seen one single seal at a time. Neither are there any ice-bears here to hunt them; if the bears exist at all, they are so few in numbers as to be insignificant; otherwise it is not our experience that these make the seals shy, for in Melville Bay, where the ice-bears yet have their *El Dorado*, the spring seals are tamer and less nervous than anywhere else in Greenland.

Joe and Hans Hendrik made the same discovery during the "Polaris" expedition, and it seemed to them so strange that the seals should disappear through their breathing-holes at the slightest creak even from a very long distance, that they communicated to Hall their supposition that human beings must exist in the neighbourhood.

From land we had watched a couple of seals attentively through our glasses before we started hunting them. When in the South of Greenland a seal crawls up on the ice to sleep, it rolls about in the snow for a quarter of an hour before it stretches out with its head on the ice, falling into a sleep so deep that, with care, one can as a rule get within range without waking it. But up here the seal remains quiet only a few minutes at a time, then it will raise its head and look searchingly in all directions, just as if it were continually expecting an ambush of some kind or other. Thus we have come to the conclusion that it is the great and sudden pressures of ice which have made them so timid and nervous; for if a pressing-up, due to the exertion of ice masses from outside, is commenced suddenly and without warning, the little cleft where the seal

## GREENLAND BY THE POLAR SEA

lives will be closed, and its access to the ocean and to food will be barred. Even if the seal should succeed in slipping down through the fissure, it would run the risk of being killed, and this is probably the reason for the short duration of its sleep, and for its being so easily startled by the slightest sound.

When we had wasted a good deal of time on the teasing seal, we abandoned ice-hunting to try our fortune on land. Here Bosun quickly succeeded in bringing down three fat, delicious barnacle-geese, which proved a comforting compensation.

We spent a day at Low Point with quick changes in the weather, and a temperature of a constant minus 1° (Cent.). Due north the sky is clear, but thick banks of fog constantly drift in from north-west, enveloping everything in a raw, whitish-grey haze; the sun is permitted to shine on us for a few moments, then once more it disappears; towards evening a belt of fog settles on the mountains to the south-west, leaving the horizon visible, and we decide to continue.

We cross Jewell Inlet, which, with its pointed high mountains, reminds one of Mascart Inlet. We pass Cape Wykander, which proves to be an island, and from this point we enter on an even gradient of coastland trending in towards the mouth of de Long Fjord. All this even mountain-land is very fertile, and seems to be the favoured haunt of hares and ptarmigan. Without the slightest delay in our progress, we succeed in killing, almost straight from our sledges, four hares and six ptarmigan. But in spite of the wealth of willow and grass, we find no sign of musk-oxen. The whole of the connected high mountain ridge which runs from the sound by Cape Wykander in to de Long Fjord has before its foot a wide and pretty plain.

On a very low projecting point we find a small beacon which, to our surprise, contains a report from Lockwood.

In a lane 5 kilometres from land Ajako shoots a seal, and we now feel well provisioned for our stay in the fjord where we are to finish our work.

# CAPE SALOR TO LOCKWOOD'S BEACON

## LOCKWOOD'S VOYAGE

Every time we meet with memorials of those who fought the same fight for progress as we do on this lonely coast, we feel that unknown men greet us, reaching out a friendly hand to comrades who continue their trails.

Lockwood's beacon is situated on a large plain, stretching in front of the high mountain ridge up towards Cape Mohn. It is small and insignificant, no more than 1 metre high, wherefore in no way does it attract attention. This explains how it came to pass that both Peary and McMillan drove past without noticing it. But we who examine every little irregularity in the ground, in the constant hope of finding game, discover it at a considerable distance. The report was deposited in a tin which was in no way water-tight, but, notwithstanding this, the writing was easily deciphered after the thirty-five years of varied weather which had beaten round the open beacon. With ancient Norse brevity the statement is made that in May, 1882, two Americans, Lockwood and Brainard, together with the Greenlander Frederik Kristiansen, passed this place.

Lockwood was a member of the Greely Expedition which started from America in 1881, as a section of the great International Meteorological Exploration which during that year took place all the world over. The expedition, which had its winter quarters in Lady Franklin Bay, approximately at Discovery Harbour, was taken so far north by the steamer *Proteus*, which immediately after the landing turned back again. Here the house was built which later on became so famous under the name of Fort Conger. In America the following arrangements had been made for the maintenance of communication with the scientists who were sent out: As early as 1882 a ship would be sent up, but if this could not get into communication with the winter quarters, a depot was to be laid down as far north in Grinnell Land as possible. The following year a new attempt would be made; if also this were to fail, a relief party

## GREENLAND BY THE POLAR SEA

was to make its way as far up into Smith Sound as possible, later on, when the ice had settled, to attempt a connection with the expedition by the aid of sledges.

In Godhavn and Upernivik the services were enlisted of two Greenlanders, Jens and Frederik Kristiansen, who, during the absence of the expedition in 1881-1884, proved to be very valuable members. The Americans—contrary to Nares' men who have previously been mentioned—employed the Eskimos fully; and with the aid of these two excellent dog-drivers they succeeded in breaking all previous records.

Lockwood was without comparison the most interesting and important man of Greely's staff. On the 3rd of April he left Fort Conger with a train of twelve men, each of whom was to pull a load of 130 pounds; further, there was Frederik, who, with his eight dogs, was to freight a load of 100 pounds per dog. On the 27th of April he returned all the human beasts of burden, and continued northward with Brainard and Frederik. Like ourselves, he got at Cape Bryant a view of the land which Beaumont at such great personal risk had explored, and he tried at once to set his course for Cape May, where all the many secrets of the land due north should have revealed themselves to the sick Englishmen. But hardly had he progressed half a score of miles inward when he met with the same soft snow which had constituted such a difficulty for Beaumont. He resolutely decided to continue northward far out at sea, rather than waste his time on details.

On the 1st of May he reached Cape Britannia, which, according to Greely's order, was the goal of his journey. But as the coast which he was to follow on the return journey was provided with many depots, and as the dogs, which had met with no difficulties worth mentioning, were as yet in prime condition, Lockwood decided at once to continue further northward, constantly keeping the distance from land necessary for good driving. This voyage must be looked upon as a reconnoitring. It was important for him to make sure of land ahead as far north as possible without examining it closely; and

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## CAPE SALOR TO LOCKWOOD'S BEACON

because of the task he had set himself he could thus with a good conscience plant his American flag on Lockwood Island in the mouth of de Long Fjord on the 13th of May. England, which for three hundred years had held the honour of being the nation which planted its flag farthest north, must now yield to the Americans. England's farthest north, reached by Markham at  $83^{\circ} 20' 26''$ , was now beaten by Lockwood's  $83^{\circ} 24'$ . It was not much, but it was a record nevertheless. In his book Greely describes the event in the following manner :

“For three centuries England had held the honours of the farthest north. Now Lockwood, profiting by their labours and experiences, surpassed their efforts of three centuries by land and ocean. And with Lockwood's name should be associated that of his inseparable sledge companion Brainard, without whose efficient aid and restless energy, as Lockwood said, the work could not have been accomplished. So, with proper pride, they looked that day from the vantage-ground of the farthest north (Lockwood Island) to the desolate Cape which, until surpassed in coming ages, may well bear the grand name of Washington.”

Already on the 1st of June, sixty days after they started, the expedition was back at Fort Conger, with all men in good condition.

Unfortunately, consideration of space limits my description of Greely's Expedition, which, when one takes into consideration the tragic fate which befell it, must surely be called the most famous of them all.

The members worked energetically during the whole of their stay by Fort Conger, both in across the land and northward. The most interesting part of their work was the exploration of Grant Land, the inner reaches of which were at that time entirely unknown; by the aid of small light hand-carts the explorers were enabled to examine the land thoroughly. Especially important were the ethnographical results, as inland near Lake Hazen several Eskimo camps were found. Greely himself took part in the inland excursions, and the men's capacity for work was highly increased by the circumstance

## GREENLAND BY THE POLAR SEA

that, in contradistinction to all previous expeditions, they did not suffer from scurvy, thanks to a sensible diet.

Lockwood himself exceeded everyone else in energy and working ability. In 1883 he went northward on a fresh excursion along the land which he had discovered, and in a surprisingly short time he reached Black Horn Cliffs, where, however, he had to turn, as he found open water.

The road being blocked, Lockwood, with Brainard and Frederik, chose a new route across Grinnell Land, which was explored simultaneously with the discovery of the big Greely Fjord. In the meantime two winters had passed without communication with the relief expeditions which had been promised for the return journey; and as, unfortunately, the expedition had been ordered, failing connection with the ship, to attempt a movement southward in the direction of relief, they now began to prepare for that journey, which proved altogether disastrous and gave rise to the greatest tragedy which has ever befallen an Arctic expedition.

To this must be added that the state of affairs on board was not a happy one, things even going so far that the physician to the expedition, Dr. Pavy, was arrested for insubordination during the last summer at Fort Conger. If ever there are conditions in life where comradely co-operation under a firm leader is absolutely essential to success, they are to be found during Arctic exploration where the few people who have to live together are entirely dependent upon each other. A situation like this, therefore, proved a great calamity. Further, opinions differed as to whether a couple of sledges ought to be sent down to Littleton Island, where, as a link in the whole chain of plans put down for Greely before his departure from America, a depot had been promised. It is always easy to criticize afterwards when the results of the dispositions are evident, and it cannot be denied that the plans here mentioned, under the leadership of one of the by now well-trained sledge travellers with one of the Eskimos for his companion, must have appeared quite natural. But Greely was against the proposition and managed to frustrate it. They then decided that

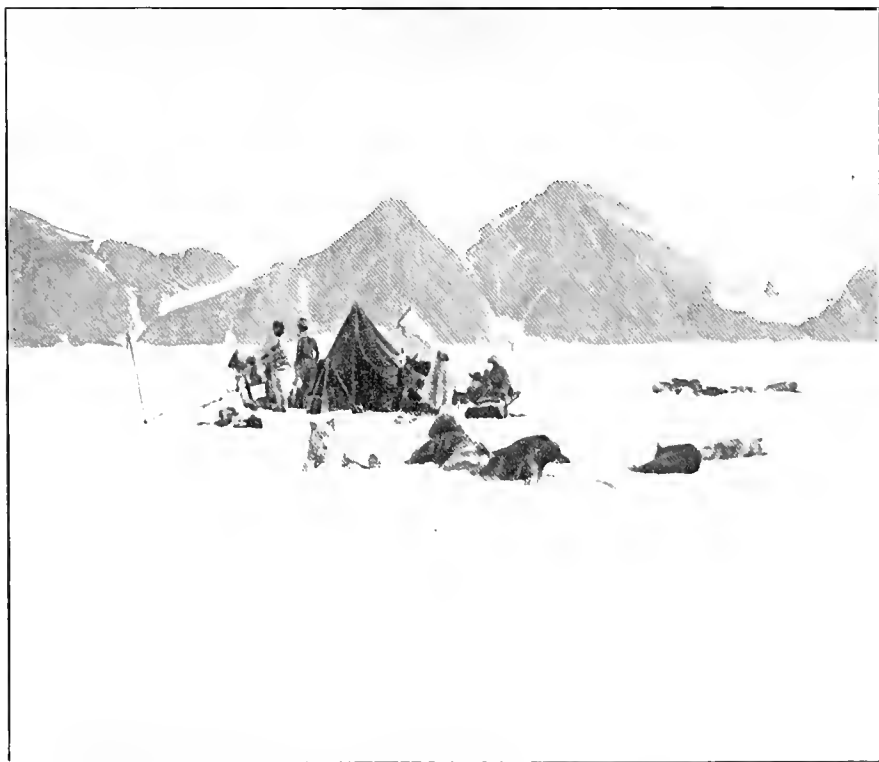
Dec: 1882

J. B. Lockwood, Lieut., U.S.A.

who passed this place May 1882 and again  
May 1882 with Sgt. D. L. Baird, Genl.  
Serv. U.S. Army and Fred. Christianson (Eskimo)



LAUGE KOCH



THE SNOW BEGINS TO GET WET



## CAPE SALOR TO LOCKWOOD'S BEACON

they should all go southward along Grinnell Land, attempting to communicate with the relief ship or depots.

When they broke up, the order was given that private property must be left behind; the officers, however, being permitted to bring a load of 16 pounds each, whereas the rankers were only allowed 8 pounds. Such partiality must have a very bad effect during an expedition, where no differentiation based on rank ought to be permitted. Furthermore, the unfortunate decision was carried that all dogs were to be left behind at Fort Conger, whereby they were cut off from all possibilities of hunting, should they have to undertake another wintering without outside help.

On the 9th of August all men left the station in boats. At this time they had yet provisions for a year, and they knew that the country was prolific with game.

Under great difficulties the boats, through drifting hummocks of ice, reached Cape Sabine, about 400 miles distant, where at last in some beacons they found information of what had hitherto been done for the relief of the expedition. The first ship was wrecked; the second, not being able to penetrate the ice sufficiently far up, had returned with all the provisions. In another beacon they were solemnly assured that everything in human power would be done to save the expedition next year.

There was nothing to do but prepare for winter as well as might be. A wretched house, consisting almost entirely of a boat with the keel turned up, was erected on Pim Island. A few depots were found, but far from sufficient for the needs of autumn, winter, and spring. One can picture to oneself the regret with which the men thought of the good warm winter-house at Fort Conger, where even a coal-mine was to be found a short distance from the door, and of all the good provisions which would have seen them through the winter; finally, there were the dogs, which could have led the hunters far inland on musk-ox hunts.

This "starvation camp," as it was later called, gives the most tragic pictures of human need and misery. Autumn

## GREENLAND BY THE POLAR SEA

passed tolerably ; during that period Greely even tried to keep up the spirits of his people by lecturing to them in the midst of cold and hunger. Later on they lost strength for any attempt at resistance, and one by one they were consumed by terrible suffering. One of the Eskimos, Frederik, died as a result of over-exertion during an unsuccessful hunting excursion ; the other, Jens, was drowned in his kayak during an attempt to work through thin ice in the endeavour to reach a shot seal ; and as the expedition no longer had the services of these professional hunters, everything seems to have gone slowly downhill. Even the energetic Lockwood, full of initiative, succumbed to hunger, which slowly stole a march on him ; towards spring, when the light returned and most of the men were unable to walk, one might discover, after the catastrophe had taken place, that one shared the sleeping-bag with a dead comrade. At long last, on the 22nd of June, 1884, the ship arrived, but then there were only six men alive out of the twenty-four.

Greely himself finishes his report with the following pathetic words :

“ Towards midnight of the 22nd, I heard the sound of the steam-whistle of the *Thetis*, which, by the order of Captain Schley, was to call his people together. My ear did not deceive me, although I could hardly believe that, in the storm, a ship would venture so near to land.

“ In a weak voice I asked Brainard and Long if they had strength enough left to go out, and to this they replied as usual that they would do their utmost. I requested them to return and inform us if they sighted a ship. In the course of ten minutes, Brainard returned from the ridge about 50 yards away, and reported in a very subdued voice that nothing was to be seen, and that Long had gone to hoist the flag of distress which had blown down. Brainard again crept into his sleeping-bag whilst we started an aimless discussion of the sound which we had heard, during which Bierderbick maintained that the ship must be lying in Payer Harbour—a statement in which I did not believe, as I thought the whistle must have come from a

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## CAPE SALOR TO LOCKWOOD'S BEACON

ship passing along the coast. We had given up all hope when suddenly we heard strange voices calling my name, and with a feeling as madly mighty as our exhausted condition permitted, it dawned on us that our country had not failed us, that all our long sufferings were passed, and the remains of Lady Franklin's Expedition saved."

## CHAPTER VIII

### DE LONG FJORD TO CAPE SALOR

#### AT THE GOAL

THE result of the previous day's reconnoitrings was that, from the high mountains situated 10 kilometres in along the fjord, one might expect to get a view of all the territory which we had yet to map. The Island we named Hanne Island, whilst the mountain which was to be the base for the last observations was called Thule Mountain.

Without any greater difficulty we covered the distance to Thule Mountain on good ice, and Koch and Ajako ascended the mountain at nine o'clock in the morning. There was a gale blowing, and during the day we observed many and increasing *Föhn*-clouds which, like huge dragons, drifted across the sky. At two o'clock Ajako returned with the following letter from Koch :

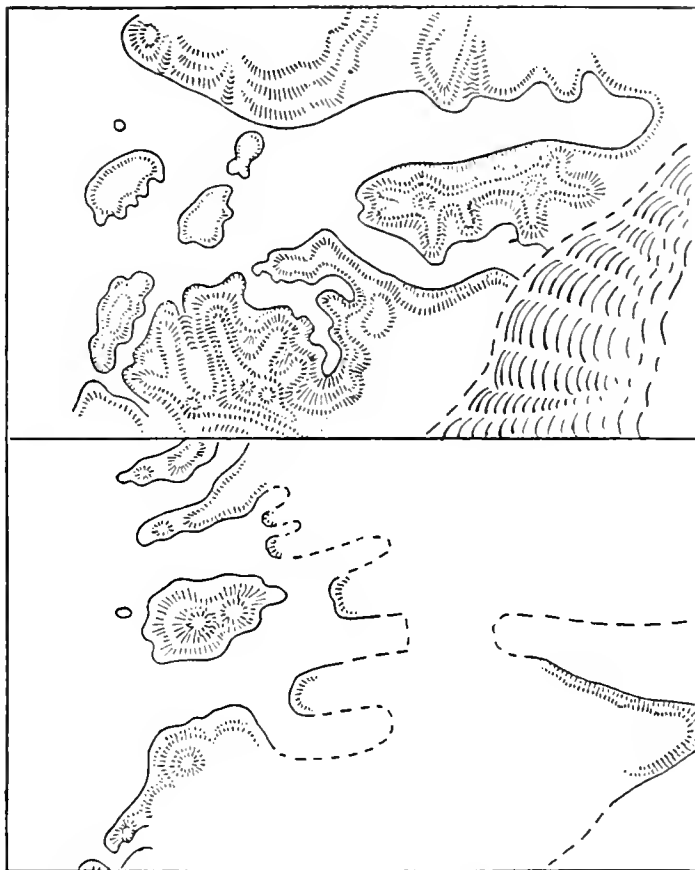
"THULE MOUNTAIN,  
"21. 6. 1917.

" Ajako and I arrived at the top here, which is 780 metres high, sufficiently early for a noon observation. De Long Fjord is large, and rich in surprises. Let me start at Cape Mohn. To the south of this, a fjord inward due west, with a sound to the Polar Sea and valley across to the sound south of Hanne Island, so that I see water in front of Cape Ramsay Island. Then a fjord due south-west with valley possibly to Mascart Inlet. Further, fjord due south with inlet ice as background. Further, a broad fjord, some thirty kilometres long, due south-east, from which two valleys due east, whereof the northernmost cuts far into the country. There is probably a lake in the direction of Frederick Hyde Fjord. Due north from here Wild Fjord lies as a panorama. The two large new fjords can be taken with a vertical base. Strong and cold wind will unfor-

## DE LONG FJORD TO CAPE SALOR

tunately delay sketching somewhat. But the air in over Peary Land continues very clear."

After this encouraging telegram I immediately went up to the survey station. It was a laborious and strenuous walk



THE LOWER SKETCH SHOWS DE LONG FJORD AND SURROUNDING DISTRICTS AS KNOWN PREVIOUS TO THE SECOND THULE EXPEDITION.

THE UPPER SKETCH SHOWS THE SAME DISTRICT CHARTED BY US.

across loose stones, but when at last I got a full view of the surroundings I nearly dropped with surprise at the enormous Arctic landscape which lay before my eyes.

On the one hand the Polar Sea, the enormity of which I

## GREENLAND BY THE POLAR SEA

have often described ; on the other Peary Land, which I knew from Independence Fjord, but which here, towards the ice-bound ocean, had quite another winter character than it has in its eastern regions during the same season. The land was everywhere covered with snow, with glaciers on all tops, and every hope of finding hunting-ground, corresponding in conditions to Poppy Valley on Adam Biering Land, was torn up by the root.

By the foot of Thule Mountain we had found the remains of very old musk-ox bones on some small grassy slopes ; but they crumbled with age and gave us no encouragement to try our fortune across the surrounding coastland.

Lockwood, who gave this fjord its name, passed so far out at sea because of the travelling conditions that he got no survey of de Long Fjord, which he viewed as a single great fjord cleaving its way in between the mountains of Peary Land. Later on, Robert Peary passed by almost the same route, and, as also his observations gave no details of the fjord complex, the theory has arisen that de Long Fjord probably continued so far inland that it, as a huge channel, combined itself with the assumed Peary Channel approximately midway between Nordenskjöld Fjord and Independence Fjord. After the whole of the big Peary Channel had been reduced to a myth, partly by the first, partly by the second Thule Expedition, there was still the possibility that de Long Fjord—at any rate in contradistinction to the quite small Nordenskjöld Fjord—might penetrate so deeply as to create around its head a stretch of country of the same kind as that which in 1912 I had found by the head of Independence Fjord. If this were the case, the distance from here to Poppy Valley in Adam Biering Land, so prolific in game, was so short that with advantage one might have founded a station for rest and recreation, which would have been of especial benefit to the botanist.

These reasons had, on the 31st of May, led to the division of the expedition—a division which in itself did not seem very risky, as we knew that, in any case, it would be possible to save oneself by a comparatively speedy journey on good ice down to the neighbourhood of Cape Morris Jesup, where the

## DE LONG FJORD TO CAPE SALOR

Americans twice had found conditions favourable. But this plan, as we have already heard, proved impossible to carry out; an unusually persistent storm had contributed considerably to the destruction of the first party's dogs. Thanks to our better fortune, Koch and I were at last standing on the summit of the mountain from which the work of the expedition could be completed. This fjord was the northernmost goal of our voyage. Even here by Greenland's last, large fjord, one might expect surprises and results to be added to those already experienced. This was the reason why we, in spite of our comrades' uncanny experiences, had staked everything on reaching this spot, and as now we stood by our goal, with our return journey safeguarded by seal meat and blubber, we all felt that inexpressible joy known only to him who has shouldered a task and carried it through in face of all difficulties.

We named the two new fjords, calling the one due southwest Th. Thomsen Fjord, after the inspector of the National Museum, who so often during our preparations had helped us with good advice. The great main fjord itself kept, of course, its name of de Long Fjord; whilst the 30 kilometres long fjord to the north-east of the middle arm was named after Professor Bernhard Böggild, a member of the scientific committee of the expedition. Not only the geological but also the cartographical and ethnographical explorations found their natural conclusion here. The stretch of coast from de Long Fjord to Cape Bridgeman was in 1900 traversed by Peary, and no deviations in the contours of the land in the form of islands or deep indentations had been found. Thus no correcting work was left for us; no mistakes were possible. When Peary had come to wrong conclusions with regard to places like Nordenskjöld Fjord and de Long Fjord, not to mention Independence Fjord, these mistakes were, as I have already pointed out, easy to explain. Due to the great stretches of entirely unsurveyed country which Peary had to traverse, his task assumed a form which merely demanded that the main contours of the land should be put down and the details left, these details becoming the work of the subsequent expeditions for which the first

## GREENLAND BY THE POLAR SEA

excursions showed the way. Thus there was no reason for us to continue, all the more as on our departure we had pointed out this fjord as being our absolute goal.

As far as our work was concerned, I had arrived at a result which could not be elaborated by a continuation of our excursion; for the possibility of a migration of Eskimos north of Greenland had been disposed of by the natural conditions which we found here by the last great fjord on the north-west coast. The land offers no means of subsistence, and the inner regions of the fjord, being covered with floating inland-ice, forbid the seal-hunt so essential for all Eskimo life.

On the same day we built a final beacon, the Thule beacon, near the large mountain which gave us the terminating view of the last regions of Greenland which were not yet known.

### HOMEWARD AT LAST

*June 22nd-23rd.*—The sudden arrival of the spring had melted the snows, so that we began to find water beneath. This is a stage rightly feared by all Arctic travellers; for at any moment the sledge may be sucked down by the wet snow, when it is only with the greatest difficulty that one can get it up again. The good seal meat had once more stiffened the tails of the dogs, but the slushy ground quickly wore down their courage. It therefore seemed high time to go down to Dragon Point.

Even our skis, which had been of such great advantage to us, were heavy as lead with all the wet snow that clung to them; we rubbed them with a candle, but the beneficent results did not last long. And the snowshoes which bore up so well in the soft snow were now, like the skis, enveloped in thick layers of wet snow and hung like weights round our feet.

We started at seven o'clock on the 22nd, and by one o'clock we had covered the 22 kilometres to Lockwood's Beacon, where we pitched our tents and cooked as many hares as we could manage to eat. We had shot seven on the way during the day, and with the addition of a piece of blubber these lean hares were a delicacy. We suffered from the heat and went about



## DE LONG FJORD TO CAPE SALOR

half-naked; the temperature on this day swung between 3° and 6° (Cent.) of warmth.

At nine o'clock in the evening we continued the journey, each man having, during this camping period, disposed of rather more than one hare. The sudden mildness was now succeeded by raw, cold weather, and all the ice of the Polar Sea seemed to drive its cold at our faces, creating a feeling which is not exactly in keeping with midsummer night.

Some movement in the ice was already apparent, as we could plainly feel a fissure from Cape Mohn right across to Cape Neumeyer, whilst another at a distance of 2 kilometres from land followed the coast towards Cape Wykander.

*June 24th.*—The cool weather improved the going, as we had expected, and it was a pleasure to note the good distance made by the dogs.

We were all anxious to celebrate midsummer night, and our wish was fulfilled in an amusing manner. Just as we passed Boatswain Sound by Cape Ramsay, a large barnacle-geese flew above our heads, circled for awhile round us, and, to our great surprise, flew down a short distance in front of the dogs within easy shooting distance. It had, of course, to pay with its life for its curiosity, and it provided us with a delicious midsummer-night roast, broiled in blubber according to the rules of the art. The day's journey ended at six o'clock in the morning by Low Point, where once more for a few hours we let ourselves be teased by the seal, which apparently had its fixed quarters here. Forced by necessity, we decided, after repeated attempts, to leave it in peace. The distance made during the day was 24 kilometres.

*June 25th-26th.*—The first thoughts which occur to one on waking up are connected with the ice and the going which it will provide. We were now in the midst of such a tedious grind that for the first hours of the day's journey we could not avoid slow-going. Involuntarily we started slowly—one had to save one's strength! But as a rule the stiffness of the limbs quickly disappeared and the journey was finished with a firm step.

The snow was quickly melting along the coast; great pools

## GREENLAND BY THE POLAR SEA

lay below the ice-foot, and the water had already begun to find outlets in the fissures which were being formed off the coast.

By Cape Bennett we found a tumbledown beacon, where another letter from Lockwood had been deposited. A short greeting to other coastal travellers had been scribbled, probably during a coffee-halt; otherwise the note contained nothing remarkable.

After twelve hours of a dead-march through heavy snow with water beneath, we reached Cape Neumeyer, having covered a distance of 30 kilometres.

Once more fog and rain forced us to lie over, and in order to suffer as little as possible from the bad state of the ground, we covered our skis and the over-runners of our sledges with sealskin, which slips easily across the wet snow.

### BY THE FLESH-POTS

*June 27th.*—The Eskimos say that at the bottom of the ocean lives an old hag who rules over all aquatic animals. The history of her life is involved and circumstantial. Originally she was married to a storm-bird in human likeness, but on a voyage, when the travellers were on the point of being wrecked and were of the opinion that her husband was the cause of the storm, she was thrown overboard. As she tried to cling to the gunwale of the boat, her hands were chopped off, whereafter she sank to the bottom. At the bottom of the sea she developed peculiar and great qualities, which made her the ruler of all aquatic creatures. She got a small house where she lived according to human customs, happily and in abundance. But her handless stumps of arms made it impossible for her to comb her hair or to free herself from vermin. The wise men among the humans had to assist her in this work by spirit journeys to the bottom of the sea. In her gratitude she sent huge shoals of animals to the sealing-grounds, so that the camp which had sent its necromancer down to her grew rich. She was given the name of "The Great Flesh-pot."

Although none of us were in the possession of qualities which permit one to make a spirit journey down to the source of all abundance, Ajako was of the opinion that somehow the woman

May 18th 1882 4 pm.

Reached this point on return - a  
few hours since. Still again  
this morning. All well.  
Inverted meteor in some or not  
and a conjunction is said about  
the middle of a month. This ap-  
pearances in some other  
from the when mentioned here  
I have intended for a few

days - many 7th 1882

May 18th



TOWARDS CAPE RAMSAY

## DE LONG FJORD TO CAPE SALOR

favoured us ; for after some hours of toilsome travelling through snow and water, we skirted a little low headland where we were literally stranded, because none of us could manage any more. We climbed the mountains so as to view the neighbourhood, and there we discovered to our surprise that some seals were lying outside our accidental camp. It was the first time such fortune had smiled on us, for the seals we had caught up to now were solitary animals. We immediately tried hunting, and in the course of a few hours we had shot three big, fat seals. Now was our opportunity to feed without stint, and the dogs soon lay with distended stomachs struggling for breath out of sheer satiety. In addition the generous land, which is called Blue Point, presented us with three hares and some ptarmigan.

We consistently continued our fattening cure. It would be of no avail to continue hunting, as we could not transport any more through the difficult snow ; but we looked upon our future fate with confidence. In happy gratitude we erected a memorial to the old Eskimo myth by calling this strip of land “The Flesh-pot.”

In the baking sun nobody could be bothered to pitch the tent. We spread our sleeping-skins across some oblong hollows which, filled with cassiope, provided the softest of beds for weary bodies. We only managed to smoke our pipes before we dropped to sleep. A flock of ptarmigan settled down cackling near the sledges, but no one had any thought of killing.

## WE MEET OUR COMRADES

*June 28th.*—Ever since we left de Long Fjord our thoughts had constantly been occupied with the fate of our comrades ; their train of tottering starved men and dogs had been a cheerless sight. If they did not soon meet with good hunting they would probably lose all their dogs, and this would be an additional difficulty for the return journey.

It was close to this camp that we had last met them, and, as the decision was that they should make for the whirlpool and attempt to catch seals there, we expected to find a message from them somewhere in the vicinity. But we vainly examined all con-

## GREENLAND BY THE POLAR SEA

spicuous points in the hope of finding beacons, and as we found nothing, we began to believe that they were yet in the fjord.

We then made for Cape Salor through heavy going, making very slow pace with our overfed dogs and meat-laden sledges. As usual, the snow was soft and wet; the skis carried us, but the dogs sank through, and generally we found water under the snow. Koch walked a short distance ahead on snowshoes, and we others followed with sledges and dogs. But as he approached Cape Salor he put on greater and greater speed, and we who followed in his tracks could see that his steps became increasingly longer. At length, a few kilometres further ahead, we discovered the reason for this sudden hurry, as our comrades' tent suddenly appeared on the utmost headland of Elison Island. We also increased our speed, and off we ploughed through snow and water. With beating hearts we floundered through the slush; even the dogs caught our eagerness and increased their pace. What news would we find? Were they yet in possession of the dogs? Or were we confronted with a journey of 1,000 kilometres with three sledges?

Under these isolated conditions, in the large silent fjords, so far from other men, one forms a society of one's own, where even the smallest occurrence attracts one's attention and becomes significant.

No wonder, therefore, that the news we were now racing towards, and which would be so decisive for our arrangements, made us impatient and nervous. For no life was apparent round the tent, although it was our custom, whenever we had been separated for a few days, to celebrate the reunion with shouts and merry gestures. At long last we were relieved as a man appeared outside the tent, flinging his arms out with joy over our arrival. Shouts would reach him. We stopped and for a moment there was a breathless silence.

“How are you?”

“All well.”

“How many dogs have you left?”

“Nine.”

“Have you food?”

## DE LONG FJORD TO CAPE SALOR

“Harrigan has shot six seals!”

Rejoicings and confusion of reunion!

*June 29th.*—At last a day arrived when we could take matters easy; we were not entirely inactive, though it would have been better for the dogs merely to lie in the sunshine digesting in a semi-conscious state. Two seals shot by Harrigan were fetched from the mouth of I. P. Koch Fjord, and another was lying on the ice off Cape Salor at a distance of about 4 kilometres from land. In the midst of the pack-ice, young ice was lying by a rather considerable whirlpool, looking strangely lost between the massive pressure-ridges.

*June 30th.*—It would have been tempting to remain here for some time yet, as the Flesh-pot situated not far away seemed to offer good seal-hunting. But we dared not postpone the journey down to St. George Fjord; a sojourn on this spot might be of immediate significance as a fattening period for the dogs and ourselves, but to freight a considerable load with the snow in this state was unthinkable. Furthermore, after the experiences of the past few days, we were sure to run across those seals, of which we have so often spoken, by Dragon Point.

We started at five o'clock in the morning, but already by nine o'clock we had to stop on a floe of dry ice as the heat of  $3^{\circ}$  (Cent.) drove the perspiration out of our bodies so forcibly that all our pores hurt; simultaneously we were so fagged out by the melting slush and the deep water that it would not be to our advantage if we made longer journeys at a stretch.

The day's journey had been a modest one: the odometer registered 8 kilometres.

Twelve hours later, after the cool of the evening had set in, we made another attempt. We found, however, that going was still worse. The sledges constantly stuck in the slush, and when the dogs gave up all attempts and lay down quietly looking at us with their sad eyes, there was nothing else to do but put all our strength into getting the sledges out of the water-logged snow.

*July 1st.*—Out of consideration for the dogs, we pitched our tents as early as ten o'clock in the morning. Although we

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had only made a distance of 10 kilometres, we were all weary and fagged out. The Eskimos call this state of the ground "putsineq." The weather was uncommonly beautiful; glorious colours, blue and reddish, rested on Nordenskjöld Fjord's wonderful landscape. For the first time we looked at this fjord approximately from the point from which Peary previously observed it; and we realized why it was that, with this view, he assumed it to be the inlet of an enormous channel stretching right to Independence Fjord. From this point one sees only the coast mountains out by the mouth which forms the entrance to the channel. The end of the fjord is not at all visible, as the inland-ice which finishes the fjord merges entirely into the ocean-ice, which thus seems to stretch infinitely inward. Some backs of Nunatak, which from the fjord itself we discern far in on the inland-ice, appear deceptively from this point to be a continuation of the coast mountains, and it has thus seemed obvious to connect this with the fjord on the east side. We looked across the beautiful landscape towards Elison Island, which, bathed in sun and with the clear sky above its sharp silhouette, breathed a peace and quietness far removed from the disturbance which, a few hours ago, we made by our progress. The air was then reverberating with incessant and desperate shouts to the dogs, now raging, now coaxing; whilst the animals gave up entirely and could hardly be forced through the last piece of slush on to the little island where the rest and the well-deserved strong food awaited them.

We pitched our tent on an insignificant little flat island which we called "Centrum Island," as during the following days it formed the centre for the cartographical station in this fjord-complex.

*July 2nd.*—Wulff's party, which had chosen a somewhat different route from Cape Salor, arrived to-day at noon. Unfortunately they had lost a dog on the way; it fell down, unable to travel any further. We now had twenty dogs left, and these were sufficient for the homeward journey if only we succeeded in keeping them in good condition by plentiful feeding.

Ajako and Bosun were for the time being sent to the mouth



## DE LONG FJORD TO CAPE SALOR

of Nordenskjöld Fjord, where on the outward journey we cached some clothes and other property which was not required for the journey ; they returned at midnight with a hunting-bag of eight hares and one ptarmigan. At the same time Harrigan shot a seal a short distance from our tent, so that conditions for acquiring food now seem promising.

During camp-life a fire, crackling and sparkling and with smoke which rises straight in the air, is the thing which most tenderly attunes one's feelings. One understands the offerings of the ancients when, with the holy fire and smoke, they sent their message up in the air towards all that which they did not understand. But though we have become less naïve, we cannot get away from the worship of nature which this atmosphere forces on to us. Our mind is moved ; in our thoughts we write poems, some light and happy, others heavy and sad ; but, wherever inspiration may lead us, something is roused in our inmost being, created by the fire. And not least in nature like this, where one stands as a puny being, forced to fight a daily battle against forces stronger than oneself. Life always seems to hang by a thread, because the day's coming events are so uncertain and so far beyond one's own control ; and this it is which, more than the many intensive joys one experiences, stamps one's thoughts and feelings up here.

A strange country ! We are now in the month of July, but, notwithstanding this, large expanses are yet covered with snow to such an extent that one prefers to move about on snowshoes or skis. The flowers are not merely patient, they even put all their strength in opposition to their mortal enemy, and grow and blossom in many places in the midst of the snow.

A large country, which seems doubly large to him who must struggle forth along its coasts, with open and wide horizons which through fjords and bays run up across the inland-ice to meet the sky in a dazzling distancy which makes one's eyes ache. Steep, reddish-brown cliffs shoot up from the sea as blockading walls, desirous of restricting the view ; but in the midst of the mountains' barrenness, the sun splashes its colours so that the

## GREENLAND BY THE POLAR SEA

poverty is ennobled and becomes the work of the great light-bringer.

A land without a heart, where everything living must fight a hard battle for life and food. Like a frozen expanse of cold and waste, the Polar Sea presses itself up above the shores to meet its brother the inland-ice, who threatens the last land from the inner deserts. The poor seals coming from the living ocean occasionally find their way up on the ice, but everywhere they are frightened by the giant mill of the pressure-ice, and they rush down in the deep again before they have had time to enjoy the sky and the sun. Down there they become lean, their layer of blubber becomes thin, they must fight against the cold which the fat ones do not notice; and the mighty vault above the ocean passages separates them from their friends, so that they are banished to the dead loneliness.

Now and then the ice-bear plants his paws on the snow of the shore-ice, but the tracks show that he walks with feet turned inward and with pinched belly, distrustful of the ice which is stronger than he himself, and with no inducement to visit the valley tracts, which are too poor to offer him a meal. Only the musk-ox and the little lemming, which is the incarnation of easy contentment, thrive and grow fat, together with the hares, whose teeth and digestion are satisfied with frozen little plants. Amidst these the slim ermine, like a bunch of living muscels, stalks hares and lemmings; rich, fat and strong it is, quite unconcerned with the poverty of the country because it lets the little vegetarians work for it. It is the good beast of prey of the region, because it is open in its animosity; thus it becomes a happy and sympathetic animal in spite of its blood-smeared jaws. Behind it sneaks the white wolf, which is always hungry and thin, although it seeks its food on the same hunting-ground: cowardly and wretched, with lowered tail and the fever of an evil conscience in its eyes—more of a hyena than a hunter.

Behind the lives of all these animals lies a miracle, the miracle of the country and the vegetation; for in this one month during which the sun rules, grows the mean vegetation which creates animal life. Without these stunted children of the sun, there

## DE LONG FJORD TO CAPE SALOR

would be no musk-ox, no lemming, no hare ; and without these, again, no ermine, no wolf—just a cemetery where only the silence of death broods.

From our flat camp-ground we had an excellent view of Nordenskjöld Inlet. Our thoughts took their own way in across the inland-ice at its narrowest point to Independence Fjord. From here it was that Mylius-Erichsen, Hagen, and Brönlund were the first men to view the head of the fjord which overthrew the whole theory of the Peary Channel ; and even if they did not succeed in mapping their discovery, they laid down a report in a beacon with full information as to what they had seen. The tragedy which struck them down on their homeward journey, when they were forced to spend the summer in a place in Denmark Fjord, poor in game, is too well known for me to repeat. Suffice it to mention the heroic task which Jörgen Brönlund accomplished, when from the depot in Lambert Land he fetched food for his two comrades who could keep up no longer—a sacrifice which was not destined to save their lives. When, later on, after the death of Mylius-Erichsen and Hagen, Brönlund once more struggled along to Lambert Depot to deposit the scientific results in a spot where they would be found, he wrote his own and his camp comrades' death-rune on the leaf of his diary with the proud words :

“Skirted 79-Fjord after attempt return journey across inland ice in November month. I arrived here in waning moonshine and could not continue because of the darkness and of frost-bites to my feet. The corpses of the others will be found in the middle of the fjord in front of glacier. Hagen died 10th November and Mylius about ten days later.”

The concluding work of charting the head of Independence Fjord and its near surroundings was executed by the first Thule Expedition, when Peter Freuchen was cartographer. In memory of his contribution towards the exploration of the northernmost Greenland, we named the great expanse between I. P. Koch Fjord and Nordenskjöld Fjord, Peter Freuchen Land.

## CHAPTER IX

### ACROSS MELTING ICE TO SUMMER VALLEY

#### ICE-WATER BATHS

**J**ULY 3RD-14TH.—After two fickle months the weather at last settled down, a change which apparently will last through this month, fortunately for us! For after every day's journey, during which with great toil we cover a modest distance of 15 to 16 kilometres in twelve to eighteen hours, all our clothes and goods need a good drying, and this could not be managed if the good sun did not during our nightly sleep once more make serviceable everything which the distracting summer conditions of the ice destroys for us.

The journey goes through ice-water, and it is only occasionally that we have an opportunity of a moment's rest on "dry ice." The warmth has converted the rough Polar-ice into a hopeless system of channels and pools, wherefrom occasional blocks push up as islands in a huge swamp of ice. In the beginning we sought obstinately for the best places where a zigzag advance was possible; but this method has been given up long ago, for everything is wet through in spite of all our efforts. All through the day we wade up to our knees in the ice-water, and, whilst we get wet through to our waists under the work with the sledges, which constantly get stuck in the holes, the same fate overtakes our reserve clothes. First the water pours over the sledges in front, then behind, according to the different positions it occupies in the melted hollows.

We have crawled in this way for three days—from Centrum Island to McMillan Valley by the mouth of Victoria Fjord—a three-days-long bath in the cold water, often covered thinly by new ice which cuts the paws of the dogs as it breaks into



THE SLEDGE BEING SUCKED DOWN BY THE WATER UNDER THE SNOW



ON THE LOOK-OUT FOR MUSK OX



CROSSING SHEPARD OSBORNE FJORD

## ACROSS MELTING ICE TO SUMMER VALLEY

knife-edged fragments. The cold water takes it out of those of the dogs which have not yet quite recovered from their period of starvation; to our great sorrow, we have had to leave one dog which was so exhausted that it fell down unable to get up again.

When neither we nor the dogs could move a step further, we select an ice-island and pitch our tent on it. A place like this can never be an ideal spot for a tent, but there is the comfort that one need not trouble to go far to fetch the water one needs for cooking. One merely opens the tent-flap slightly and fills kettle and pan.

Under these somewhat cheerless conditions, Koch celebrated his twenty-fifth birthday. We hoisted the flags, both the Danish and the Swedish, and made an extra cup of strong coffee. Each of us then presented the hero of the day with a few lumps of icing sugar—a much appreciated and, at present, exceedingly valuable article. The last of the store of this sugar put aside for the homeward journey across the inland-ice has been distributed in rations and everybody watches as a beast of prey over his modest share. We might have had a feast, but I sheered off from the festive feelings of the moment for rational reasons. We are the possessors of delicious pemmican, oats and biscuits; but these delicacies must only be touched when the journey on the inland-ice commences. In that desert we shall require all dietetic stimulants. In spite of temptation, I therefore hardened my heart and contented myself by cooking double rations of seal meat, and, at the same time, I promised faithfully to celebrate the day when, on the return journey, we had reached to a height of 2,000 metres on the inland-ice.

The short and slow daily journeys benefited the cartographer, who took latitudes and longitudes, sighting all the more conspicuous points as often as occasion permitted.

During a halt, approximately 13 kilometres from McMillan Valley, the coast was carefully surveyed with the glasses. We looked for hares, which were now visible far away as tiny white dots. Our store of meat was finished and we found no seals on this bad water-filled ice. Bosun and I were somewhat behind,

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engaged in lashing our sledge afresh. As is well known, all transoms are tied to the runners with leather straps, and when these are immersed in water too long, they soften and give so that the lashings loosen and the whole sledge falls to pieces—as a rule, of course, where the water is deepest! To lash a sledge takes an hour's time and is laborious and tedious work, especially so when the hands are numb.

Whilst we were bent over the unloaded sledge, and struggled to tighten the wet straps, which were difficult to handle, new life was suddenly put into the crowd ahead. They had been lying tired and dead on the sledges, but now they began to jump about like mad, and both Harrigan and Ajako ran far out to the side, jumped high into the air, flung their arms about and slapped their thighs, all of which are Eskimo signs of some unusual happening.

Bosun and I looked at each other for a moment incredulously, without saying a word; for this could mean one thing only. But as we stood there staring, not quite daring to believe that for which we had hoped more than anything else, Bosun sensibly delivered himself of the relieving sentence:

“One does not cheat hungry and wet comrades who are toiling ahead through the water!”

In the same moment we both gave vent to a bellowing shout:  
“Musk-oxen!”

The sledge was finished in a twinkling, and as rapidly as the bad going permitted we were up on the ice after our comrades.

All faces beamed; what we had guessed was really true. We ourselves took the glasses to see. Off a small glacier tongue in McMillan Valley, on a ridge towards our old spring camp, a herd of grazing musk-oxen was plainly visible.

We embraced each other and behaved like lunatics. No dignity here! For what we saw meant not merely food in plenty for ourselves and the dogs, but also implied rest and drying of our clothes for some days in the beautiful valley, which must now be in its full summer garments.

With great difficulty we covered the last piece of the way; under favourable conditions it would have been done in an hour,  
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now it took seven, before at last we beached with dripping clothes after a thorough bath of thirteen hours' duration.

I arrived an hour after the others, as the sledge for the second time during the day had fallen to pieces and had to be lashed afresh. My comrades had already pulled off their wet clothes and were taking sun-baths stark naked on a small grassy slope. And surely this was necessary, for we were red and wrinkled right up to our waists just as if for a long time we had been in soak. The temperature here on land was perfectly tropical, showing  $5^{\circ}$  (Cent.).

I was hoarse with shouting to the dogs, which for the last stretch had been almost impossible to drive through the water; and Dr. Wulff came smilingly towards me and told me that during the hour whilst they had been waiting for me, he had experienced the truth of the word of the holy Augustine: "That the joy of the blessed consists not merely in knowing oneself to be on the right side, but also, and that not least, in the constant listening to the despairing cries of the damned." Thus they on land had felt it, after having fought their way to the right side, when they heard me out in the slush alternately yammering and raging at the dogs!

We were all hungry as wolves and therefore voted for an immediate hunt. So we went across the land, taking all the dogs with us. Unfortunately, we were stopped about half an hour later by a flood-like river about 400 metres broad, and after having made several desperate attempts to ford it we had to postpone the hunt until the following day, as the river could only be passed some distance seaward out on the ice. In spite of our hunger and murderous instincts, not one of us was to-day in possession of sufficient courage to cross this ice just as we had reached land.

To stave off the hunger, we arranged a hare-hunt, which gave an excellent result. In the course of a couple of hours no less than eight of the little white-clad animals had to lay down their lives, and a temporary camp was made so that we might have a little rest before the musk-ox hunting started in earnest.

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The wet clothes were spread out to dry, and we dozed off half naked in the most varied postures, not unlike a horde of Serbian refugees, with all our earthly property distributed about us.

After five short hours of rest we again went seaward on the ice, navigating between and through a complex of deep channels by the mouth of the great river, it being our intention to attempt a landing a few kilometres due east of the main course. The ice here was particularly bad to walk on ; the whole surface was so far melted that everywhere it had taken on the character of an expanse with thousands of nails side by side turning their points upward. The tracks of the dogs were red with blood after the many awls which found their way into the pads of their paws, and even we men felt the pain through our soaked boots. With a feeling of relief we at length reached land and pitched our tent in a small sheltered cove by a kindly bubbling brook. Sledges and goods were deposited up on land, and as soon as all our wet clothes had been put out on the cliffs to dry, we took the course up a mountain and into the valley where yesterday we had seen the musk-oxen. We brought all the dogs so that they might be as near the slaughter-ground as possible.

After an hour's walk we got a view across a low ridge, and hardly had I had time to examine the surrounding district when instantly and simultaneously we all gave a start. A little more than 100 metres from us five musk-oxen were peacefully grazing, unsuspecting of the beasts of prey who had been counting on their death for the last twenty-four hours. All the dogs with the exception of two were carefully tied to some big stones before they got wind of this fragrant game. For if the dogs are loosed in a flock on a musk-ox, especially if they are hungry, they will as a rule throw themselves so recklessly and greedily over their prey, that one runs the risk of having them gored ; and at that moment we certainly could not afford to lose more dogs. We therefore contented ourselves with taking the two poorest ones, and walked along to the herd. We

## ACROSS MELTING ICE TO SUMMER VALLEY

divided into three parties, and before the musk-oxen had discovered us, we stood before them on three sides as if shot up from the ground.

The musk-oxen lay ruminating; they now arose without haste and took up their usual fighting position, the famous square with a front to all sides. Thus they remained standing without making the slightest attempt at flight, whilst we on our side had the greatest difficulty in holding back the two wolf-dogs, which wanted to spring on to them.

There were five bulls, and they all accepted the position with dignified calmness; their great shiny eyes stared at us without fear, and they contented themselves with an occasional almost contemptuous twist of the corners of their mouths.

To us they seemed phantastical in their enormous size, because for such a long time we had been used to the sight of hares and lemmings only. They were in the midst of shedding their coats, and the loose wool, which appears to come off in big cakes, lay across the manes and backs as bunches of mourning crêpe. Occasionally they breathed deeply through their enormous nostrils, and blew wheezingly out into the air. Then they would, as if in impatience, beat a hoof against the soil so that small stones flew about our ears. Otherwise they remained quiet, making no attempt to attack.

As the rare and occasional hunts had given us no good opportunity for photography, all the three of us—Koeh, Wulff and myself—took our position and snapped. More patient clients no photographer could have wished for, notwithstanding the fact that we did our work very thoroughly. We took them from all sides and angles, from a distance of from 2 to 10 metres, profile, full-face, whole-figure, half-length, and only when we had finished did we pass sentence of death.

First we made an attempt to drive them further down towards the tent, so that it would be easier for us to carry the meat down to the sea-ice. We went, still with the dogs on leash, close up and began to throw stones at them. At first they seemed surprised and indignant over this treatment, which

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appeared to them most unworthy; but then the devil took possession of them!

The biggest of the bulls, apparently the leader, suddenly stamped his hind hoofs so hard into the soil that a rain of gravel and stones fell over us; then he let out a bellow, turned right about and galloped across the plain with the remainder of the herd behind him.

We unleashed the dogs immediately, and they tore after the oxen; but the whole proceeding had taken place with such lightning swiftness that the bulls had got a good start, and it took the dogs some time to draw close to them. We ran with all speed, so as to be near and ready to shoot when at length the drive would stop on the top of a hill where they could defend themselves against the attack of the dogs.

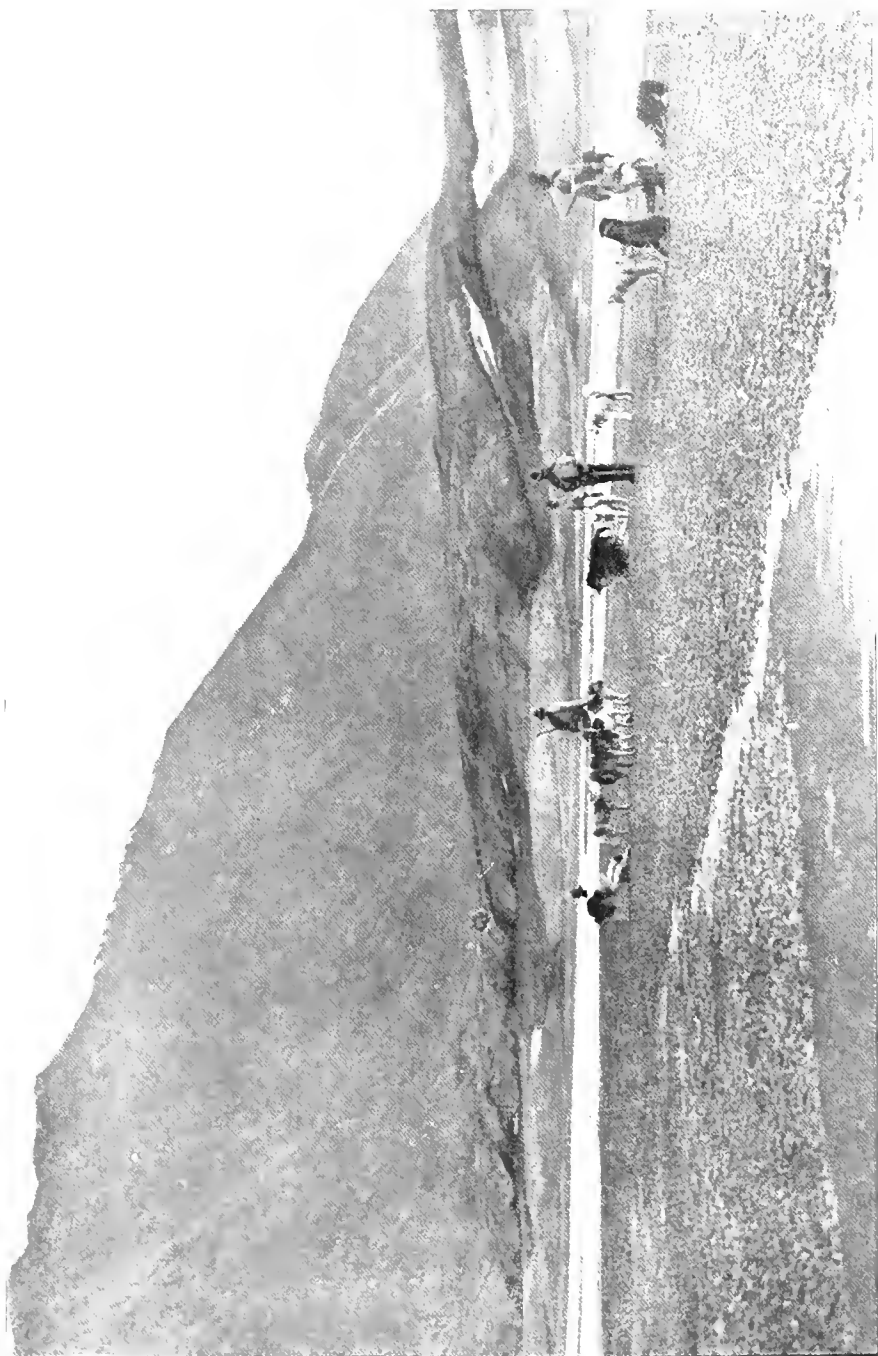
But things did not work out according to plan. The bulls ran for dear life, and they made such a pace that it almost looked as if they were blown along by a hurricane. Right out by the end of the plain the foremost of my dogs succeeded in overtaking the herd. We saw it attempt to bite itself fast on to the hind leg of the rear fighter; but instead of stopping at once, collecting its comrades in a square and receiving the attack, the bull, with the dog yet hanging with teeth buried in its flesh, was content to turn round with lightning quickness, shake the dog off, scoop it with its horns on to its enormous neck, and fling it up in the air like a ball. The poor dog whirled round and crashed heavily to earth; its courage cost it its life.

In the meantime the hunt raged on. The other dog, which was an old and experienced bear-dog, had come up with the fleeing herd and succeeded in stopping the hindmost ox outside a steep high cleft. Ajako, who was ahead of us all, rushed up ready to shoot, but in the moment he raised his gun, the bull threw itself down over him like a landslide, paying no attention to the scolding dog, which in vain tried to hold it back. They disappeared together into the cleft, and I only saw the cloud of sand and gravel which whirled up round them. I rushed up as quickly as I could, and to my great joy I soon heard a shot, then

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MUSK OX READY TO DIE





BREAKING UP FOR MUSK-OX HUNTING IN MACMILLAN VALLEY

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another, and a moment later I myself was down on the battleground. Ajako, his face yet aglow with excitement, stood by the killed bull, whose dreadful and sudden attack so nearly had cost him his life.

The four remaining bulls ran in close formation up a hill, where they passed close by our tethered dogs. These rose up and commenced an infuriated barking, whereafter the bulls, obviously bewildered by the many wolves, once more changed their direction towards the river to the south-west.

One duffer, who could not keep up with the others, separated from the herd and galloped towards the lake where we had camped during the spring. After a hot chase, it was overtaken here and stopped by two dogs which had torn themselves loose. Whilst they held it Bosun arrived and shot it down.

The remaining three gained their freedom for the time being, but although we were sure that it was only a matter of time when we should find them again, we nevertheless repented too late our stone-throwing; for it would surely have been better for the transport to have the animals collected in one place. For the moment we had to be contented with the humour of having photographed them at a distance of a few metres, and then in spite of our need for meat, to lose them! It is the first time during my many musk-ox hunts that I have seen an attacked herd which has not stopped and formed square after a short run, to meet their inevitable death.

The two musk-oxen were skinned; and we all ate fat marrow-bones until we were in that peaceful mood which follows on a good meal. We could not deny that our joy was mixed with bitterness, for three big, lovely animals had temporarily escaped out of the flock which we had reckoned on with such surety as a foundation for a couple of restful days in the beautiful and summerlike McMillan Valley.

We were all agreed that something must be done; both we and the dogs needed a rest before we had to wade on across the broad Sherard Osborne Fjord. In the meantime we had already had a turn of over thirty hours under very severe condi-

## GREENLAND BY THE POLAR SEA

tions ; then, after a few hours of sleep, we had again been keenly active for rather more than fourteen hours ; nevertheless, it was desirable that the hunt of the three musk-oxen should be continued at once, before they got too far away.

We were all sleepy and tired. Whilst in the cleft the last meal was cooking, one after another drooped down and slept. The many days' bath in the cold ice-water had not passed over us without leaving its mark ; some of us had in a most uncomfortable way lost the powers of the knee-muscles, and to-day especially Harrigan and I had sunk to our knees time after time during the musk-ox hunt when we ran down the slopes, for we had no strength in the muscles of our legs.

Under these conditions there was only one man on whom I could count, and that was the best and indefatigable hunter, Ajako. Time after time I have had the opportunity to emphasize his invaluable qualities for a voyage like this ; his splendid physique, his endurance, his never-failing hunter's instinct. He it was who shot the first musk-ox at a time when the position began to be critical for the dogs ; he it was who caught the first seals by the whirlpool and saved the rest of our team ; and, finally, it was he who in the midst of the Polar pack-ice off Cape Neumeyer got the seal which secured the voyage to de Long Fjord. Therefore it was also this man whom I suggested should continue the hunt at a time when the rest of us had to give in because of overstrain ; and the hunting excursion he was to undertake would take at least another fourteen hours. Ajako accepted my proposal with a smile : oh yes, it had been his own opinion the whole time that it would be better to continue the hunt at once ; thus the matter was settled. As soon as the contents of the pan were cooked, we turned out on a big flat stone delicious pieces of tongues and hearts, floating in fat, and had our meal together. Then Ajako seized his gun, loosened the dog which usually followed him on all his hunting excursions, and disappeared behind the nearest ridge, light and supple, as if he had just got up from a long and refreshing rest. Over his walk and all his being rested a beauty which only youth and strength gives.



## ACROSS MELTING ICE TO SUMMER VALLEY

Twelve hours later Ajako returned to the tent tottering with sleepiness. Not only had he found and shot the three oxen which had tried to escape : he had also shot another three. All the animals were skinned and cut up, and the meat had been laid out in the sun to dry, so that it might not be destroyed by the bluebottles which shoot up from the soil everywhere in the vicinity of a piece of meat.

To these good tidings he added smilingly that he had also seen another herd of six musk-oxen, peacefully grazing near his slaughter-ground, undisturbed by the hunt. These last animals he judged it best to let live until the camp had been moved nearer to that spot.

To crown it all, he carried on his back, in addition to the hearts and tongues of the newly-killed animals, two delicious barnacle-geese which he had shot near to our tent on his way home.

He honestly deserved the twenty-four hours' sleep he had after this excursion.

Later on we moved the camp 10 kilometres ahead to a valley in the vicinity of Cape May, off the point where both the killed and the living oxen were found. We set out in glorious sunshine, and the good warmth which, during the last few days on land, had baked right through our bodies, which were often quite red and swollen after our wading trips, gave us new strength for the coming toil. And that was urgently required, for it took fifteen hours to cover the 10 kilometres through water, ice-rivers, and rugged Polar-ice. We made ready for the hunt when we had pitched our tent by the sea-ice.

We were now able to face the coming week with calm minds. There was a sufficiency of meat for men and dogs, and plenty of work for the botanist of the expedition in the fertile, well-watered valley.

For the first time during our journey we all had real feelings of summer with  $7^{\circ}$  (Cent.), and fine, calm, clear weather ; that was why we called the valley with the name which sounds so sweetly to an Arctic traveller, Summer Valley.

## SUMMER VALLEY

*July 11th-14th.*—As soon as our clothes were once more fit to use after the wading trip of the previous day, we all went into the mountains with the dogs leashed; they were to go “into the country” for four days to regain their strength, and during that time they would be allowed to eat as much of solid meat as they could get down; they were to laze, gorge, and grow fat.

To the uninitiated it may perhaps seem that sledge travellers are inconsiderate and cruel to their animals. Maybe that now and then we have to harden our hearts towards them when, during heavy going, they throw up the sponge and refuse to proceed; but what else can one do under such circumstances but harden one’s heart and force the poor beasts ahead? It is surely to their own interest that we should get them as quickly as possible across bad ground. If a tired dog is cut loose, it will simply lie down on the spot to die without making any attempt to follow. And even if now and then we do treat our dogs harshly—under conditions when we ourselves are no better off—nobody is more happy than we are when for a period we are able to give the faithful animals a holiday and leave them to enjoy the pleasures of the present in excessive gourmandizing. So we then select a well-watered and sheltered place for them, preferably by a small brook with fertile and soft ground along its banks; here all their food is brought to them and they have full compensation for all the evil days we have forced them to live through.

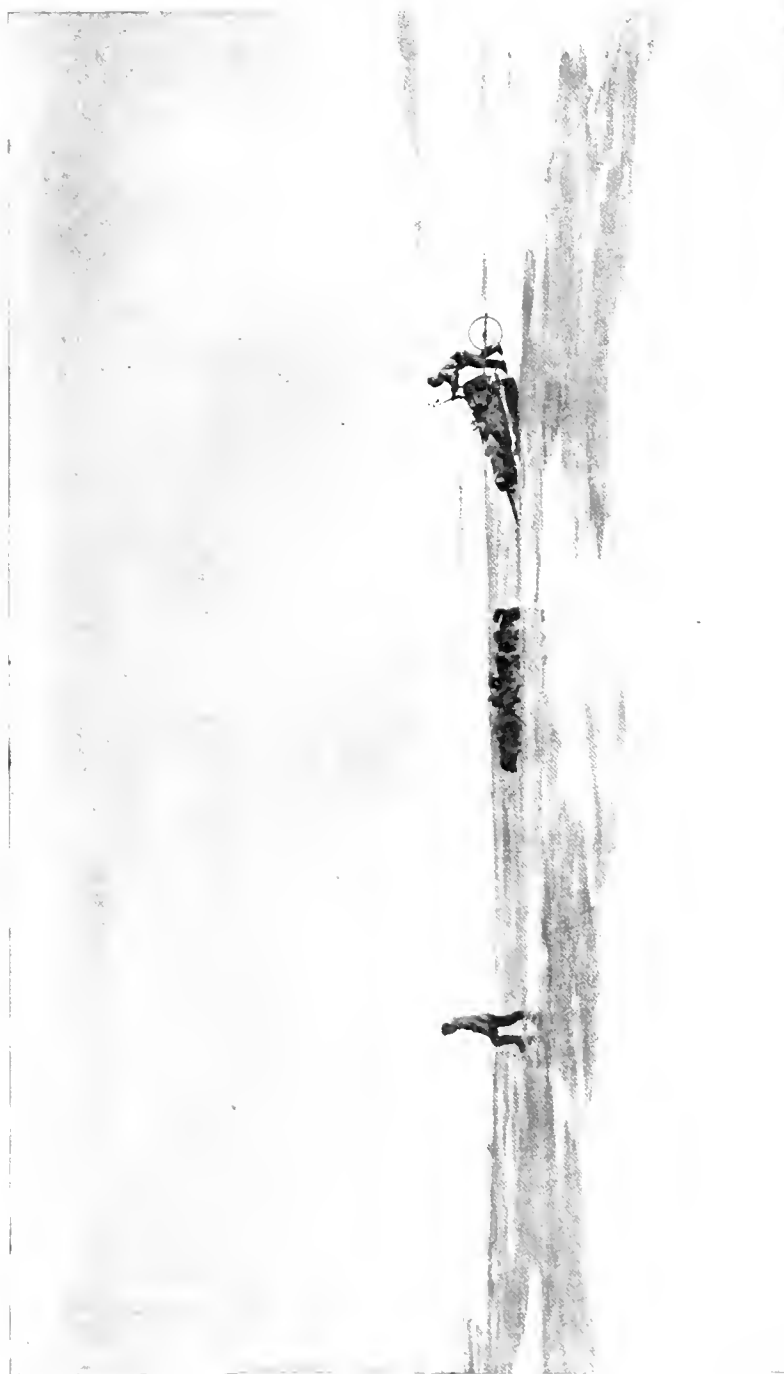
Unfortunately such days appear only as oases in a desert, where generally one must fight for existence from day to day. But then no driver shirks the longest and most strenuous hunt to procure game; and if hunting fails, he will as a rule share with his team the crumbs destined for his own pot.

Our eighteen dogs, then, the remains of the seventy with which we arrived up here, were to spend a few days in lazy abundance, wherefore they were taken up into Summer Valley to a place where Ajako had his meat depot of the six oxen. First, however, the last observed herd was to be killed, and we

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THE BIG BULL MADE A SUDDEN SWERVE, QUICK AS LIGHTNING, AND THE DOG DISCOVERED THAT THE MEAT HAD WAS FANGLED!



THROUGH LAKE'S OF MELTED ICE

## ACROSS MELTING ICE TO SUMMER VALLEY

now found that it consisted of five animals instead of six, as we had originally assumed.

The hunt was quick and easy. The musk-oxen, one bull and four cows, grazed on a fertile hill near to the killed animals. By way of a small valley we had approached unseen by them, and we now stood before them suddenly and without warning. As soon as they discovered us they gathered and formed into their famous order of battle, in no way appearing to be surprised or impressed. They quite calmly looked into our eyes and contented themselves by occasionally sharpening their horns against the stones.

A herd of wild cattle like this possesses a most impressive dignity; not for a moment does their calm ruminating balance desert them as long as the onlooker keeps quiet. They show not the slightest sign of fear as does other game of the wilderness, such as the bear or the reindeer, which run away at a long distance. To run across a musk-ox means really to meet it; it remains quietly standing, examining and scanning us, but over our meeting there is a certain equality, a silent dignity, which almost bears the stamp of an audience in the midst of the great silent waste where no other sound is known than the rush of the rivers and the scream of birds.

They do not suspect, these black, long-haired majesties, that two-legged kniek-knacks like us carry such mean devilment as quick-firing machine-guns, nor that all the wolf-dogs, which in the beginning we considerably kept back, will be urged on to them as soon as they attempt to retire from our obtrusive presence.

As usual, we wish to start by photographing them, but this did not fall in with the wish of the bull. He made a few lightning-swift sallies, so sudden and dangerous that we quickly had to shoot him so that we might photograph his wives in peace. When this was finished these also had to bite the dust; and I must say that they accepted death with the same contempt for pain as did the great bull. A bullet through the chest, and they sink to their knees once more staring at us with their large unfathomable eyes, as if protesting against the deceitfulness of

## GREENLAND BY THE POLAR SEA

wounding an enemy at a distance instead of during a close fight. Then they quiver in pain, until another bullet cuts off their breath and their enormous bodies topple over in the sand, drawing with a heavy gasp their last sigh.

When the skinning was finished the dogs were given as much meat as they would eat; they were then tethered on the selected spot by a running brook, where they could sink into a comfortable sleep until once more they were ready for a meal.

After that we ourselves went down to the tent to take our rest, no less deserved. Every man carried on his back as much of solid meat as he could manage. For we humans have at any rate that advantage over the animals that we offer a thought for the morrow.

We remember Summer Valley as an oasis in our period of distress. It was full summer and at every step we took we could enjoy the many beautiful flowers which pushed up from the mean earth wherever there was the faintest possibility to strike root. Besides these many æsthetic pleasures there was also the material boon of abundant and savoury provisions for so long as our visit lasted.

Summer Valley stretches about 6 kilometres from north to south, or from the sea-ice to the inland-ice. A river, which at our departure will present great difficulties by the great and deep delta which it melts far out in the Polar Sea, has created the valley and flows through 200 metres high hilly tracts, the so-called "stubble mountains," whose slopes are very fertile. From all fells and mountains little brooks run down in the main river, and from certain yet unmelted snowdrifts water oozes down through a throng of yellow, red, white, and blue flowers and lush, green grass.

Whilst at the camp on the ocean-ice we have a temperature which swings between zero and 2° (Cent.), we have 10° of warmth in the shade both night and day as soon as we come a little way up into the valley. In the sun there is upwards of 25°, a temperature so overwhelming that we must search

## ACROSS MELTING ICE TO SUMMER VALLEY

out shady places in order not to suffer too much from the heat.

In strange contrast to this teeming summer is the Polar Sea with its thawing, whitish-grey ice stretching northward as far as the eye can reach.

Snorre mentions somewhere in "Hejmskringla" that Hakon Jarl, during his visit to Harald Gormsön, the King of the Danes, whilst a fugitive from Gunhild's sons, had so much to think about through the winter that he took to his bed. He often lay awake, and ate and drank only sufficient to keep up the strength of his body.

I am on the point of sharing his fate; I have serious problems to consider, and although conditions do not permit me to go to bed to seek the perfect quietness in which the tangled skein may be unravelled, I fully understand the old Viking and his eccentric behaviour. I often lie awake during this period while the others sleep, and it appears to me that one is never nearer to the "pink dawn of decision" than when, with one's body at rest in the sleeping-bag, one's brain is working. Undeniably at this time there is plenty of food for thought for one upon whom rests decision and responsibility.

The bad going of melting ice and water through which we must force our way leads naturally to considerations of the practicability of a summering in this valley where, so far, game seems to abound.

My comrades have repeatedly asked me if I did not consider it wisest to break the journey for the time being, and continue later on when the air was cold enough to freeze the water on the ice. But I have postponed my decision and maintained that we ought to continue so long as we make any advance on even the most modest daily journey.

During the days we have spent here I have thoroughly considered the question and made my decision.

We must continue, and in spite of the demoralizing state of the ground we must make all efforts to reach a point of access

## GREENLAND BY THE POLAR SEA

to the inland-ice somewhere by the head of St. George Fjord. A summering here might prepare for us the same fate as that which overtook Mylius-Erichsen, for we must rely upon the land-hunting, and, when the neighbourhood is exhausted of game, it will be extremely difficult to reach fresh hunting-grounds. We cannot reckon on catching seals to such an extent that we could feed seven men and eighteen dogs for a period until the going is better, which will hardly be until the beginning of September.

By continuing our journey now, unless misfortune overtakes us, we are able to travel with three teams each consisting of six dogs. At the moment we are all in full strength ; but nobody knows in what condition we and our dogs may be after two months of hunting life here.

There is now the hope that we may find seals by Dragon Point, whereas in September we shall find none. Our catch during the summering would have to give such a surplus that, beside our daily needs, we would also be able to provide for the homeward journey ; all of which is very doubtful.

Should we postpone the return journey, the difficulties we meet with now would come back on us in another and far more serious way. Later in the year there will be more snow on the inland-ice, consequently our gear and provision will be so inadequate that we must take the route across Fort Conger and make a temporary wintering there. That would complicate our dispositions to a far greater extent.

Now in July and August there will be no unusually low temperature on the inland-ice, we shall have the sun to dry our clothes, and we shall be able to do without our sleeping-bags and suchlike articles, which will considerably reduce our loads.

Even if we should not find very good hunting by Dragon Point, we can safely cross the inland-ice on the provisions which at present we possess ; finally, at this time of the year we can cut short our journey and go down on land near Humboldt's Glacier, where hunting of reindeer and hare is good. Later on in the autumn the darkness will deprive us of this chance for hunting.



## ACROSS MELTING ICE TO SUMMER VALLEY

Last but not least : two months of hunting life in these tracts, where necessarily one must traverse huge expanses of land, will wear heavily on our boots, which are already in poor condition because of the constant wading through the water.

Therefore, homeward as quickly as possible in spite of all ; every day that goes will increase our difficulties !

## CHAPTER X

### SHERARD OSBORNE FJORD TO ST. GEORGE FJORD

ACROSS SHERARD OSBORNE FJORD FOR THE LAST TIME

**N**OT without sadness do we take leave of this little valley where both men and dogs have had four glorious rest days. We all have a feeling that in front of us lies a fight for life which will require all our strength.

We cannot take with us much meat of the eleven oxen killed in this place. We have carried down to the sledges twenty-four shoulders and legs, which for human consumption would go rather a long way, but as dog food it is too lean to last out well. We cannot take more than this quantity, for, as the load consists of other things as well, it would be quite impossible for us to pull heavier sledges out of the many water-filled holes which we shall pass. Furthermore, the temperature in the valley was so high that it was impossible for us to keep the meat fresh. Enormous swarms of bluebottles literally shot up from the soil and laid their eggs everywhere on the meat. A skinned piece which is put aside will in a few seconds be entirely covered with flies. So quickly do the eggs develop that the fat and disgusting maggots pour out of the eyeholes of the killed animals. Also the solid meat is destroyed in the same way; but fortunately it is not a great quantity which is being wasted, as from the very outset we overfed our dogs, and we also have had as many meals as we could possibly get down.

All our energy is now bent towards the crossing of Sherard Osborne Fjord, however heavy and difficult the going may prove. For now we want to get home. The day before yes-  
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terday I sent Harrigan and Ajako to Cape May to reconnoitre ; their observations revealed the fact that the road from our camp to the cape itself will be difficult ; on the other hand, it seems that the fjord itself, despite occasional clefts, will not be quite impossible. Therefore, let us spit on our hands !

At five o'clock in the afternoon of the 15th of July we are ready to start. Standing there on the ice ready to throw ourselves out into the water, Summer Valley appears more pretty than ever. The afternoon sun sheds its colours over the green-speckled slopes, and the inland-ice behind the country hangs over the friendly babbling river in beautiful pink shades. Even the great ice-covered ocean has put on gay garments, phantastic mirages breaking the dead monotony of the horizon by erecting aerial castles above the plane of the desert. Beaumont Island with its sharp, dark cliffs has risen above the ice and hovers high up in the air swathed in violet hues.

But we have no time for poetic moods ; before us lies the grey, everyday prose in the many water-filled hollows we have to cross. For the first four hours we work our way out through the great river delta, where the water often reaches to our waists. In most places the dogs cannot reach the bottom, so we ourselves must undertake the work of getting the sledges across the deep lakes. Especially when the sledge-snouts get stuck below the hollowed ice-hummocks we find work hard, for then we have to lie down with our arms in the water, wrenching the sledges backwards out of the obstacle.

To save our collections, the photographic material, diaries, and other important matters, from a soaking, we build another storey to the sledges, erecting two staffs on the foremost transoms and building a bridge of skis between these and the up-rights ; this is a very helpful invention.

Near Cape May the ice improves greatly, and to our great surprise we find on the first half of Sherard Osborne Fjord the best ice we have as yet encountered up here. The melted water has apparently oozed through, so the basins are for the most part dry or at any rate covered merely by very shallow water. The dogs trot along in good fettle with one man on the sledge,

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an encouraging sight which we have not witnessed since the 7th of May ; they all wear kamiks and do not suffer much from the sharp points of the ice. At six o'clock we pitch our tent in the middle of the fjord off Reef Island, which is one of the Beaumont Isles. In spite of the occasionally difficult condition of the ground, we have already rather heavy loads for the return journey. We have paraffin, pemmican, biscuits, coffee, tea, sugar, oats, our clothes, and each eight ox-shoulders and legs, besides tallow and melted marrow. We really do not need a great addition of seal meat for each sledge. But so far we have, strangely enough, not seen any seals at all.

If only we can get two whole seals per sledge—altogether six—in addition to what we shall require before we ascend the inland-ice, we shall easily reach the land by Cape Agassiz, situated only 400 kilometres from St. George Fjord.

It is the fourth time on this journey that I come to Sherard Osborne Fjord. Without comparison it is the most beautiful of all the fjords up here, the wildest horizon outward, most air inward, with peculiar geological formations. The Devonian section out towards the mouth is light brown and warm in tinge, with numerous tongues of glacier pushing down between the high out-jutting capes ; the Silurian further in, bluish, leaden-grey, strongly changing in colours in the varying light ; and inmost the tender, often pink algonkium, the eozoic section with its fine pinks of dawn.

In the background, through a mighty wide gateway by Cape Buttress, is the inland-ice, which from this point shows against the horizon as a whitish sun-glittering fog.

In the beautiful, quiet afternoon as I am writing this, previous to the start for Dragon Point, the enormous stillness of the fjord is broken by occasional rolling thunder from the many small local glaciers which seem unusually lively here on the north-east side of the fjord. Our camp is in the middle of the fjord. At seven o'clock in the afternoon we break up, setting our course for Dragon Point.

Fortunately we have the same easy going as yesterday. The

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many great water-basins have poured out their contents through the melting-pores of the ice, and in most places they are now quite empty. The porous ice with its sharp needles is painful for the feet, but the dogs constantly wear their shoes, which prevent their paws from being cut. In some places we meet lakes which are from 2 to 3 kilometres broad. As a rule the water here only reaches up to the ankle, but it is very cold and covered with a layer of thin ice which breaks with a jingle as soon as we tread on it. This sharp new ice troubles the dogs when it breaks between their paws, for the fragments have edges like knives, having the hard consistency of fresh water in contradistinction to the softer toughness of the salt water. To get around the worst and biggest of these lakes we drive in a zigzag course, and only at two o'clock do we reach Dragon Point after having made a distance of 13 kilometres.

To our surprise we meet here a belt of open water between land and the ocean-ice. The excessive quantity of melted water of the last few days has oozed down from land and softened the ice; the pressure of the tidal waters underneath has added its work to hasten the melting, and these forces together have produced a broad belt of open water between land and the ocean-ice. We find a spot with a breadth of only 40 kilometres and ferry across with the sledges which, with the aid of bladders, we have made capable of floating.

To our indescribable disappointment, we have not yet seen one single seal; the reason must surely be that the ice, because of the hasty melting of the snow, has become so rough and prickly that the seals do not care to crawl up on it. Nevertheless, we are hoping that a systematic hunt may give some result, as in the water-belt between land and ice we have seen several.

After a hurried meal Harrigan and I climb the mountains in order to find, from the top of the high Dragon Mountain, a point of access to the inland-ice. Going is bad and we frequently cut our feet, which are already sore from walking across the ice, on the many little sharp stones which cover the mountain slopes. These stones alternate with heavy, soft clay, now in such a state because of the thaw that we frequently sink down

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and stick fast. Finally we have to cross several rivers which give us difficulty.

We decide to climb the mountain due south by south-west of Dragon Point and hunt hares on our way. There are not a few, but they are incredibly shy. We succeed in bagging eight, which we deposit by the foot of the mountain.

We see a seal on the ice near a whirlpool outside a large river which appears to intersect entirely the land of Dragon Point. The ice where the seal lies is, however, so strongly thawed up because of the fresh water, that it proves impossible for us to approach to within shooting distance. That is the only seal we have seen so far.

It is slow work to climb the mountain, as our feet are burning with walking on the small sharp stones which torture our foot-soles. Not until five o'clock in the afternoon do we reach the top of a great firn\* with deep and fatiguing snow. We are now well over 1,000 kilometres above sea-level. But our efforts are rewarded, for we have a glorious view of Sherard Osborne Fjord, St. George Fjord, and the country in all directions. But our eyes do not appreciate the grand Arctic panorama glistening in fresh light colours from glaciers and firn-covered land; they search for one thing only: the many tongues of the inland-ice down towards land which shall make it possible for us to ascend and find a way homeward; and simultaneously we give a loud shout with joy:

We have found the place!

Approximately 40 kilometres into the fjord the inland-ice lets down a white fold across an even gradient of mountains at a distance of 5 or 6 kilometres from the fjord-ice. No crevasses are apparent, and across the peaks behind shines the broad even back of the main glacier. Here the attempt must be made.

Late in the night of the 19th we return to the tent after an activity of nearly two nights and days. Hendrik and Koch then climb the Dragon Mountain to find an observation station with a view of all the new land.

\* Firn—i.e., covered land.

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### THE SEAL-HUNT FAILS COMPLETELY

*July 19th.*—In the afternoon of the 19th, Ajako and Bosun return after three days of seal-hunting, which has brought no result. They have been right across the fjord and followed the coast right down to Cape Bryan, where they were stopped by a broad open ocean trending far seaward due north, and then due west in the direction of Black Horn Cliffs. No seals were to be seen here, probably because they kept further seaward. But they have seen many along land in the broad water-belt. Here they had shot six, the very number I had mentioned as a safeguard for the homeward journey; but every one had dived to the bottom like a stone.

The habits of the seals of this fjord—or perhaps on the coasts of North Greenland generally—are so different from what is known in other places in Greenland, that we were landed in a very serious position. Everywhere the seals at this warm summer-time will crawl up on the ice, and a sure aim gives an easy catch; in that way we got our seals by the Flesh-pot and Dragon Point. But those which must now be shot in the water will sink at once because they are so thin. It is possible that the water-filled surface which constitutes rough and slippery ice does not tempt them to come up, wherefore they must fall back on the open water either at sea or along land or ice. But under similar ice conditions and at the same time of the year in Independence Fjord in 1912, and by the previously described sealing-grounds by Marshall Bay and Renslaer Harbour, we saw the seals crawling up. A water pantomime like the one here being performed along the land, none of us have previously witnessed. From our camp we have shot altogether three, but they also went to the bottom without a movement, and in spite of all efforts it proved impossible to fish them out of the turbid water. It was therefore essential that we should now take stock of the provisions which we have deposited, and also of those which we have acquired during recent hunts; we shall scarcely be able to get more, but we ought to have sufficient, even though it be the smallest possible sufficiency.

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I reckon twelve days' journey from the edge of the inland-ice to the land by Cape Agassiz near the southern corner of Humboldt's Glacier. The distance will be 400 kilometres; with the possibility of four weather-bound days, that will be altogether sixteen days' travelling. To meet all emergencies we ought to take provisions for twenty days.

The stock-taking of the stores which we eachèd on this headland in May gives the following result: Rolled Avena oats for twenty days, with one cooking a day; biseuits, little rye-flour biscuits of the size of the well-known Marie biscuits, five per day for twenty days; about 50 pounds of pemmican, divided into small rations for seven men for nine days; also coffee and tea for twenty or twenty-five days. We must procure meat provisions for about ten days. If, as for the moment seems likely, this is to consist entirely of hares, we reckon three hares per day for seven men, which again means that thirty hares must be found. These represent a very undurable and bony article, so we must cut them in two and bring only the hind part.

But as long as we remain on the ocean-ice, as long as the many seals splash in the melted water right in front of our eyes, we will cling to the hope that after all we may succeed in catching a few. Should even the land-hunt fail, we have only our dogs to fall back on; this is unfortunately neither æsthetic nor tempting, but circumstances may arise when the fight for existence simplifies the lines on which dispositions have to be made, and the situation thus created alters one's feelings to a certain degree.

For the dogs we have twenty-four pieces of musk-ox meat, chiefly legs and shoulders, also skin and blubber of two seals. This we hope will suffice for twelve travelling days, provided we have not to make inroads on it in St. George Fjord. Thus there is yet a possibility that most of the dogs with some luck will come safe to the land south of Humboldt's Glacier. When we arrive there we shall be within Etah—the hunting-grounds of the Eskimos—and can surely then manage the last 250 kilometres till we meet men.





"THE BULL STOOD THERE, ITS PLANTASTIC SUMMER COAT FLUTTERING IN THE BREEZE, THE SHORT, STONY LEGS WERE  
FIRMLY PLANTED IN THE GRAVEL AND ITS WHOLE ATTITUDE BREADED THE TRANQUILITY OF THE DESERT."



DR. WULFF READY TO GO THROUGH THE WATER



WE FERRY ACROSS THE COASTAL LANE BY DRAGON POINT

Already it is now quite clear to us that the homeward journey will require the last of our strength ; but we have no choice, we must reach home and get away from these regions where there is not game enough to make existence possible for any length of time.

Ajako and Bosun, immediately after their return from their unsuccessful seal-hunting, went out to hunt hares ; after an absence of twelve hours they returned with five hares, having also seen a largish flock of ermine, of which they brought one. In order to save our ox-meat the dogs were fed on hares—a meal which tastes well enough, but did not seem to satisfy them. In the course of the day Koch and Hendrik returned from Dragon Mountain. Koch was full of enthusiasm over the beautiful view he had had, and over the excellent results his climb in the mountains had yielded.

Hunger and death stalked us from all sides, and we decided to break up quickly. As it pays best to have the hunters distributed as well as possible, the journey was arranged so that the expedition temporarily was divided into two parties. Wulff, Koch, Hendrik, and Bosun were to follow the great river which penetrates the country, and go so far in that they would come out on the height of the point from which we were to cross over to Daniel Bruun Glacier on Warming Land. Harrigan, Ajako, and I were to drive the sledges to our meeting-place.

During camp-breaking we were all in high spirits. We did not offer much thought to the fact that now we unavoidably had to tighten our belts ; it was far more important to us that we had at last found a way homeward, and that our stay up here was completed with good results. Before we parted we had a merry shooting competition with a revolver, which must be left behind, as we had to reduce weight so as not to drag on unnecessary burdens. During this competition Hendrik represented, as usual, good spirits and transmitted, with all his amusing fooleries, his happy mood to us. Immediately before we each went our way, something happened which at the moment seemed of no consequence, but which later was destined to

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occupy my thoughts much, even though I could not regret the decision I had made.

Just before we broke camp, Hendrik came up to me and asked to be excused from going inland; he could not explain why, but he would rather not, and therefore asked my permission to join our party and cross the ice. I explained that there were practical reasons for the distribution, as it was of importance that as many as possible should go land-hunting; furthermore, the walk on land would be much more comfortable than driving across the ice, as the latter would go chiefly through water-basins. He found an excuse by saying that his boots were bad, and that it would hurt his feet to walk across the stony stretches. I gave him at once a pair of my own kamiks to pull on top of his own, so that the soles of his feet should not suffer.

At that moment Harrigan, who had heard our conversation, came up to say that if Hendrik would rather not go across the land, he could take Harrigan's sledge, so that the latter could go hare-hunting with Bosun. But Hendrik had now come to a new decision and declared that as I had decided he ought to go with the land party, he had better do so—and thus matters were settled. The only thing in this little incident which for a moment surprised me was that Hendrik, who always in the best of spirits accepted the task allotted to him, on this occasion hesitated to carry out his orders; but as during the past few days, with his Remington rifle of the Royal Greenland Commercial type, he had shown himself to be one of our safest shots when it was a matter of bagging the shy, fleeing hares, I was nevertheless satisfied that my decision should stand, little suspecting the uncanny catastrophe which was destined to be a consequence of this arrangement.

### THE MEETING WITH OUR COMRADES BY HARTZ SOUND— HENDRIK FAILS TO APPEAR

*July 20th-24th.*—At last on the 28th of July we set off on a beautiful evening to attempt an ascent in the place we had noted from the top of Dragon Mountain. Our stay by Dragon

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Point had in every way disappointed our hopes; but in spite of the not very generous store of provisions we could not but feel elated, for the sun shone above us and dried our clothes whilst we slept.

Waving our hands to our comrades, and with encouraging shouts to the dogs, we drove out in the middle of the fjord, where going seemed to be better. But we soon found that conditions were more changeable than ever. The ice consisted of old Sikûssaq, and an unusually bad one at that. The melted holes were up to 3 metres deep, and in some places they were so close to each other that the small hills of ice which separated them were so narrow and sharp that it was almost impossible to run the sledges across without toppling them over. Occasionally we met lanes right through the ice, and these proved a great obstacle to us because the dogs flatly refused to swim out into them. With all our strength we had to keep the sledges upright, so that they should not fall down in the seas; and gradually we got very tired of holding them, for they increased in weight as the load became waterlogged. Although we helped each other across all difficult passages, the sledges often got the upper hand on the slippery ice, where we slithered about in our water-filled, soggy boots, and when they did overturn there was nothing to do but jump out into the water as quickly as possible.

Everything was soaked, even our holiest of holies—the photographic films, taken on the whole of our journey, Wulff's collection of plants, the oats, the cameras with their valuable films, and everything else bore the marks of that damned drive.

After twelve hours' bathing we stopped at nine o'clock in the morning, hoarse with shouting at each other and the dogs. Our slight advance was 20 kilometres into St. George Fjord.

By five o'clock in the afternoon the baggage was once more so fairly dry that we could continue. The state of our own clothes was of less consequence, for we would be driving into the water again in any case.

Just as we were ready to start, a seal popped up in the lane right under our noses, and at the same instant it got a bullet

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through its brain ; but in spite of all our speed it sank like a stone before we had time to touch it.

It blew from north-west and a fog set in ; in an instant the summer was as if blown out of the fjord, and as the sun disappeared we felt so cold in our wet clothes that our teeth started chattering. Off we went through ice and water, but in the midst of our hurry we must stop frequently to renew the kamiks of the dogs, which were being worn out on the rough ice. Without their shoes the dogs would have big wounds on the pads of their feet within a few minutes, and thus be of no use for the remainder of the journey ; so we tied on their kamiks with hands swollen and stiff from the cold water. As soon as possible we continued inward, and to our joy we found that going was better than yesterday. The wind rushed round in the fjord in a funny way. It entered as a south-easter on the south side of the fjord and left it as a north-wester along the northern shore. We were in the middle of the ring, and we felt exactly as if we were on a merry-go-round.

We followed the shore-ice inward and were stopped by a shout from land. Through the fog we discerned Bosun sitting on a big stone just inside the belt of the tidal waters, wildly gesticulating as is the custom of the Eskimo when he has an important communication to deliver. As soon as we approached we understood that he had really important news. He had just shot a seal, which lay plainly visible in low water. He also told that on the way he had shot seven hares. This put new life into all of us. A long stake was hurriedly formed from the tent poles, and at the end of this the point of a harpoon was fixed, to be run into the seal so that we could haul it up by the aid of the line fixed to the harpoon. It was the first time that a killed seal had sunk in a spot where it was visible, and we already sensed the taste of its delicious meat in our mouths and the warmth of its blubber in our bodies. A ferry was made, but at the very moment the improvised harpoon entered the water, the seal, as if seized by an invisible hand, rolled out and disappeared in the deep.

We did not swear on this occasion, our disappointment was

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too great; strangely silent we continued inward to meet our comrades.

Bosun told us that Hendrik had remained behind, as he had chosen to take a little snooze and then continue the hare-hunting.

*July 22nd.*—At two o'clock in the morning we met Wulff and Koch, rather weary after their long journey. But as soon as they had had boiled hares and coffee their weariness was as if blown away, and we could once more discuss the position. The country had been trackless and desolate, and though a fair number of hares had been observed, they were so shy that one could not hope for hunting which would make a rest here possible.

We had yet eighteen dogs, and if these were to live on hares they would require at least ten per day; even that would be a somewhat mean meal, as at this time of the year there is little meat on their bony carcasses. We saw clearly that it would be impossible to get so big a bag that it would suffice for the dogs and for ourselves, and in addition yield the thirty hares which, according to our ideas, would be required as a supplement to the provisions for the homeward journey. Thus there was nothing for it but to continue inward, as every hour of delay meant a further decrease in our stores.

None of us gave a thought to Hendrik's absence at this time; under the changeable conditions of our existence, we were so accustomed to hunt each in his own direction, and to remain absent for indefinite periods as often as we thought fit, that there was no cause for anxiety. For safety's sake, two men nevertheless went to search the mountains in different directions, and even when they returned to the tent at two o'clock in the afternoon, twelve hours after our arrival, without having seen a sign of Hendrik, none of us felt any uneasiness about the matter. This last excursion gave a bag of eleven hares, whereof ten were immediately given to the dogs, whilst we ourselves shared the one amongst us.

It was Ajako and Inukitsoq who had been in the moun-

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tains; immediately after their return Bosun was sent over to the point where he and Hendrik parted on the evening of the 21st, but also he returned after a long absence without result. Only then did we begin to feel anxious about Hendrik, and incessantly one or two men went into the mountains, where we tried to attract Hendrik's attention by a thorough search and also by shots and shouts.

Bosun gave the following report :

After a walk of ten or twelve hours into the fjord, during which Wulff and Koch were constantly visible on the opposite shore, Hendrik and he reached a large stone, where they lay down to rest and to cook a hare. Not for a moment had they doubted the direction they were to take, and they knew now that they had reached the spot where they had to turn downwards to St. George Fjord. Especially was Hendrik, who had been with Koch on the top of Dragon Mountain, well orientated.

They were both very hungry, but as they had only fresh willow-shoots with which to light a fire under a little tin, they did not succeed in making a fire and had to give up the cooking. Whilst sitting there, neither of them anxious to eat the raw hare, Hendrik fell asleep. Bosun was anxious to get in touch with us on the ice as soon as possible, and he roused Hendrik to tell him that he intended to continue now. After that he went down to the river, which was large and broad, but he found with ease a ford where the water reached no higher than to the ankles. On one of the shores of the river he sighted some hares, which he pursued. Here he turned round to look for Hendrik and saw that he stood upright by the side of the stone where he had been sleeping. Hendrik had at that time a bag of four hares, and was yet in the possession of thirty cartridges, and as Bosun assumed that he would continue the hunt downward along other paths, he went towards the fjord in the direction in which he and Hendrik had just seen Wulff and Koch. Through a clough he reached a large stony highland which led straight down to the fjord, and here we met him about an hour after his arrival.



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The situation at present is a desperate one; we do not know at all what to do or where to search, for as the country is yet bare of snow there are no tracks to guide us, and as Hendrik, according to Bosun's tale, seems to have continued his hunting, it is impossible to know which direction he has taken. It is unthinkable that he should have lost his way, especially as he is on an island. We incline to the assumption that during the pursuit of hares he must have fallen with his gun and shot himself. The hares here have their haunts between clefts and stones, and to find a man who has had an accident in such a place would be purely a matter of chance.

In this connection I am reminded of an episode from the colony Christianshaab, in Danish North Greenland. A boy was accidentally shot about 3 or 4 kilometres from the colony itself. The whole camp, numbering about eighty people, went searching for him, but without result. Three years later he was found quite accidentally, as a couple of ptarmigan hunters ran across him; and here he lay, literally on the high road of the ptarmigan and hare hunters, but in a stony track where only sheer chance had led people to him.

For the time being we continue our search. In the meantime the fjord-ice which we must pass along on our crossing to Warming Land approaches its absolute melting. Around us the water grows deeper and deeper, in certain places forming holes which go right through the ice. For every day the difficulties connected with the traversing of such terrain increase. Furthermore, the immediate neighbourhood has been hunted empty of hares, so it is increasingly difficult to keep the dogs in fair condition.

A large, showery cloud-bank draws up from south-east and increases the dismal feeling which rests over the tent and makes us all silent. At every sound from the mountain, when a stone loosens and rolls down or a bird breaks the silence with its scream, we start up and run out of the tent to see if, maybe, it is the missing one returning. If in addition a storm is to set in it will probably be impossible to cross the fjord; and we have

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had good weather for so long a period that an immediate change is to be expected.

To-day all the country inland has been searched in the direction of the great river, also the coast as far as we could get along Hartz Sound.

*July 24th.*—As a final attempt we decide to spread ourselves simultaneously across the stretches of the island where there might be a possibility that Hendrik has met with an accident. We walk incessantly for twelve hours, spread out at a distance of some 3 to 4 kilometres from each other. All the night in the great oppressive silence the landscape resounds with our shouts, but never do we hear the reply or the shout for help which we so anxiously await. Eerily sounds Hendrik's name across the island which is now to be his grave. When at last we have to give up further attempts we return to our tent, tired and without a word, creeping each to our place.

We then hold counsel and decide unanimously that nothing more can be done for Hendrik, and that we are forced to continue the journey. The cloud-banks which have threatened us from the south-east horizon, now fall on us with rain and make the position in our camp yet more untenable.

It was with heavy hearts that we broke camp. But before our departure we built three beacons on conspicuous spots, one on a mountain-top which was visible from the whole of the stony plain behind the mountains; there we left a letter with information as to the route we had taken, and where he could reckon on meeting with us during the next eight days. Another beacon with similar information and a map was deposited down by Hartz Sound; finally we built a beacon right off our tent-camp, and here we deposited a little provision and clothes, so that, in case he should have lost his way, he would be able to reach us without difficulty at the camp of Warming Land.

Yet once more we searched the surroundings, as somehow none of us felt ready for the start. Subsequently, on our journey across the fjord we searched with our glasses time after time the districts which we had walked through during these

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last few days. When from the utmost headland on Warming Land we turned in towards Daniel Bruun Glacier, the search had lasted for seventy-two hours at one stretch.

#### THE LAST DAYS OF TRAVELLING ON ROTTEN ICE

Our lives were now at stake ; that was the brutal truth. So we set out on an ice which was so rotten that under all other circumstances we should have considered it entirely unfit for travelling, but forward we must go and that as speedily as possible. Three of us had to walk in front of the dogs, which could hardly be forced through the water, often so deep that they had to swim.

Twelve hours after our start a seal was shot in the lane of tidal water along Warming Land. For a few seconds it was as if we were torn out of the oppressive mood which had settled on us, as the hope of a fat meal revived our courage. An ice-floe was used for a ferry to the point where the seal had sunk, and before long we discovered it, as the water was fairly clear and not very deep. In great haste our harpoon of joined tent-poles was made ready, but just as we were commencing to fish up the seal, some large floes came floating, arranging themselves as a death-guard above the sunken seal. It was therefore of no avail to sacrifice our night's sleep in a desperate attempt to get it. The rain poured over us, and that small section of the upper part of our bodies which the water had not been able to reach was unmercifully soaked from above.

It is well known that even if in reality we humans have given up every hope, nevertheless we keep as long as possible an opening for the very last little possibility. Thus we have been hoping that Hendrik for some unaccountable reason or other might have crossed Hartz Sound ; and if this was the case, we would now meet him on Warming Land. To-day this hope also failed ; and now when we must consider Hendrik's death to be a fact we begin to discuss the fate which overtook him. It is possible that whilst asleep wolves fell on him ; on our journey to-day we have seen three, one of which came from

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the country we had just left. There is also a possibility that he may carelessly have tried to cross a river at a point where it was deep, with a current strong enough to pull him down. Finally there is the possibility, which I have mentioned before and which perhaps is the most likely, that he has stumbled and shot himself.

During the walk to-day I had such an experience of the wolf as I have never had before. Straying in across land, I heard slinking footsteps behind me, and, as I suddenly wheeled round, I saw, about 50 metres behind, a pair of round flaming eyes which were fixed on me. At the moment when our eyes met the fire of its glance was extinguished, and the animal stood in a relaxed position with cowardly limp limbs, void of all interest in me. I was unarmed, holding only a stick in my hand, and it was almost as if the animal was aware of my perfect harmlessness but dared not show it. It amused me for awhile to probe its mind, with the result that as soon as I advanced, turning my back on it, it doubled its pace and followed me; but in the moment I turned, the fire died out of its eyes and it tried to demonstrate interests entirely unconnected with me. On the other hand, if I walked backwards it never followed me, being content to stop in its expectant but indifferent position. This, then, was the ambush personified, and it was with a shudder that I thought of poor Hendrik's fate.

*July 26th.*—We had continued our journey last night after a few hours of rest on the spot where we lost the seal, and now we had again divided into two parties, as there was ever the possibility that game might be discovered on land. So Wulff, Koch, and myself were walking here, gazing across the country void of game until our eyes ached, when suddenly our attention was drawn towards the sledges, which were driving some way out on the fjord and had now made a halt. We immediately directed our glasses on them and discovered that the great moment which for many days we had been hoping for had arrived. A seal was visible on the ice a few kilometres from the sledges, and Inukitsoq had already begun to creep towards it. An hour elapsed, during which time we hardly

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dared to breathe, then at last our tense nervousness found relief in loud shouts of joy : Inukitsog had shot the seal ! We had now crawled along for sixteen hours, and naturally we took this rare and welcome opportunity for camping. With great trouble we sailed on small ice-floes across the land of tidal waters and reached the ice, where soon after we were with our comrades.

We then feasted according to all the rules of the art. Our craving for fat was satisfied by the lovely fresh blubber, and after that we boiled rich blood soup, which gave us a feeling of satiety such as we had not felt since Summer Valley. The dogs were given their share of the catch, and we had an addition to our provisions which was of the greatest significance for us.

*July 27th.*—We are now not far from the point of ascent to Daniel Bruun Glacier—hardly more than 6 kilometres ; but in spite of all our efforts the distance covered on the rotten ice is merely some 10 kilometres in a day's journey of twelve to fourteen hours !

Early in the morning we set off again in pouring rain, but the good meal of yesterday has had its effect. Yesterday we had blood soup with blubber, mixed with a cup of oats, which thickened it agreeably ; to-day we had boiled meat.

We are all very lean and, although we are sunburnt and look healthy, the work of the last few months has left its mark on us. Under such circumstances good food put into one's body is like putting coals in a stove ; so we do not feel the cold in spite of the miserable rain and the soaked clothes, and all through the day we enjoy an inner warmth which reminds us of the times spent care-free round the flesh-pots of home.

In the evening we reach a deep, strong river which has formed a great delta on the ice, thus making it impassable. We are approximately off the point where we must attempt to bear up towards the inland-ice, so we make camp on land hoping to find a ford later on.

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## THE POINT OF ASCENT ON WARMING LAND

*July 28th.*—Although the temperature has been high and the thermometer from midnight to noon has registered between  $0^{\circ}$  and  $2^{\circ}$  (Cent.), we have spent a cold night, as all our clothes and skins were wet.

Never has a night seemed to me so endlessly long ; drizzle alternated with snow, and I lay with the barometer literally in my hand, constantly watching for some little change for the better. But in vain ! At length I had to settle down to the fact that in this life, and not least when travelling, one must take the evil days with the good ; when my restlessness had found an outlet in this way I really did fall asleep.

In the morning we wake up to a blissful day ; the rain has stopped and the sky is clearing between the heavy storm-clouds. Dragon Mountain and Mount Wyatt shoot out of the fog, standing with their sharp profiles as enormous sentinels by the mouth of the fjord, where nature is now dressed in its winter garb. In the forenoon the sun breaks through with fine calm weather, and we get busy to exploit its delicious warmth by drying all our gear.

The promises of the day increase as we approach noon, and with the good weather the prospects for the future suddenly alter ; out by the open water of the great river delta seven seals crawl up on the ice, giving rich promises of a good return journey, with meat in the pots every mortal day. A mere couple of them, with all their delicious blubber, would entirely alter the situation.

We have still left seventeen good dogs, which in a wonderful way have gone through and resisted all adversities ; never have the dogs of any expedition been more hardy and enduring than ours. Not even the last month of swimming and wading in the ice-cold water has done them much harm.

Seal-hunting must be attempted, and Inukitsoq crawls out on the ice. To our great disappointment there is no result. The water on the ice is so deep that the seals hear his splash at  
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A Fjord in Greenland

LANDSCAPE IN GREENLAND





a distance, however carefully he moves, and with a pang through our hearts we see one seal after the other disappearing through the ice. But also this disappointment we can bear if only the weather will keep so that we can get our clothes dried and push on upward.

In the afternoon a seal is shot in the tidal water lane, but, as usual, it goes to the bottom. We now know through long experience that it is really hopeless to spend ammunition on this hunt, but for all that we cannot help trying, for there is a bare possibility that some time we may succeed; and this hope carries the day every time the round, shiny heads with the big, staring eyes appear above the surface of the water, scanning us at a distance which is within range. But the fresh water prevents the seals from floating.

When we return to our tent hungry and despondent after this last seal-hunt, some degree of calmness settles over us when we openly admit to each other that the hope of any increase of provisions must be considered dead. It is necessary to resign ourselves to our fate. The only living animal whose tracks we occasionally run across is the craven and dastardly Polar wolf, which as a rule visits the ice-foot below the tent whilst we are asleep to see if there may be something to steal. But the wolf also suffers from the terrible poverty of the country. Hunting on land is attempted, but Hendrik's Island appears to be the border for the game; there at any rate were hares. With heavy hearts we take to the last way out, killing one of our dogs; this happens for the first time on our journey. Our spare provisions for the glacier we dare not touch, and we cannot face a hard walking journey entirely without food.

To-day we certainly got something in our stomachs, but as the dog had been tough in life, so also was its flesh tough to masticate. And contrary to our usual custom we take our meal without joy.

Towards evening adversity once more sweeps over our heads. Big storm-clouds come up from the south-west, drifting at a hot pace in across the steep mountains of the fjord; the barometer is falling, and to our sorrow the rain once more

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lashes the canvas of our tent, whilst our clothes go mouldy on us. We heap big stones on the canvas, tighten the guy-ropes thoroughly, and prepare for the worst.

### RAIN AND SNOW

*July 29th.*—All through the night heavy weather has raged in the fjord. There was a gale on, but fortunately we did not feel this, being sheltered behind the mountain. The rain has poured down as never before, unfortunately right through the canvas, which is no longer water-tight. Towards noon the barometer goes up somewhat and the rain turns to snow. This cooling generally means an improvement. The country around us is quite covered with snow, and its appearance is autumnal.

I give strict orders that we must economize in provisions as long as we remain quiet, so we have no food to-day. But at five o'clock Koch arrives to announce that those in the other tent can bear it no longer. I then distribute small rations of musk-ox tallow and promise them boiled dog's flesh as soon as the weather permits us to make a fire. The snow falls thicker than before, but the barometer is on the upward grade.

Some time during the afternoon I heard the strong calving of a glacier somewhere inland—an uncanny sound. It appears then that a producing glacier must be situated in the vicinity of our point of ascent. From Dragon Mountain we thought we could decide with certainty that Daniel Bruun Glacier was connected with the main glacier due north-east, with a direction towards Ryder Glacier in Sherard Osborne Fjord, where the inland-ice, so far as we could see, merged evenly with the horizon. Harrigan and I were both quite sure that favourable conditions for ascent were to be found here; but of course we would rather reconnoitre beforehand. But the rotten ice does not permit of a closer survey inward, so we must make a bold stroke and attempt to get up on the inland-ice. We have no other choice; our many hunting excursions for hares have

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made a good inroad on the ammunition ; there is a difference in what one gets in return for the shot when one shoots a musk-ox or a hare !

By midnight we again eat some pieces of musk-ox tallow.

### STORMY THOUGHTS

*July 30th-31st.*—Through the last twenty-four hours the meteorologist has reported fog after fog with a constantly falling barometer. By two o'clock in the morning I can stand it no longer, but seize my diary to find an outlet for the despondency which weighs upon us all. The snow falls heavier than before—soon it will be heaped up, bad and heavy going.

Nobody will be surprised to hear that it is difficult to kill time ; we cannot sleep continually, and, hungry as wolves, we do not feel in the mood for reading, though our library yet contains the Bible and fragments of Snorre.

We still possess two tents and we have pitched them both so as to shelter our possessions somewhat ; Wulff, Koch, and Harrigan occupy the one ; Ajako, Bosun, and I the other. The atmosphere of our little camp is not a light one ; we have felt strangely subdued since our happy little Hendrik disappeared in such a mysterious way. On a day like this everything seems sad.

Heavy in heart, we observe how every day which goes makes our good dogs thinner and thinner ; we ourselves are not much better off, but we understand the purpose, so we shall soon be accomplished in the art of starving.

For the time being we must remain waiting—waiting to get a view of the glacier which we must ascend, waiting for the sun to dry all our clothes ; and when we break camp we shall certainly need what strength we have left. All of us have dear ones to whom we are bound for life ; in their name and for their sake we will sell our lives as dearly as possible and not give in as long as we can stand on our legs.

Temporarily we must endure and await. Evil times go slowly, go slowly ; such is their nature.

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At six o'clock in the morning hunger forces us to break in on the provisions reserved for the glacier ; in good spirits we boil oatmeal gruel on the *Prinns*, as it is impossible to make a fire outside. Each man receives two cups of gruel, and the good *Avena* oats warm our bodies like a fire, and rest like caresses on our empty stomachs.

Oh, how good it is ! We are all in a funny, childish mood which reminds us of the birthdays of our childhood ; this is the result of a little proper food. We can keep up for another while, for as long as we are weather-bound the point is to put physical energy on the lowest gear.

Noon is as a rule the time when changes for the better occur, and we therefore always approach the middle of the day with a feeling of excitement. It is thus also to-day. At twelve o'clock the weather clears and a couple of seals crawl as usual up on the ice some way from the tent. They catch fleas and roll happily about in the snow, occasionally glancing towards the camp, then again stretching out at full length, drunk with sleep, taking their sun-bath in the cool afternoon with closed eyes. Previously we were happy when they popped up, now we have begun to hate them.

After the last attempt Harrigan declared that he considers it hopeless to hunt seal through the deep water ; but Ajako, who does not know the feeling of giving up as long as there is the faintest possibility of success, declares that in spite of all he will attempt to wade out into the water. For this reason we cook seal meat and a cup of coffee and the situation immediately seems lighter. Alas, how we humans are ruled by our stomachs and the little ballast which they claim !

I admit it, dear reader—one does become materialistic when food so extensively claims one's thoughts. But the craving for food is far from being a sovereign ruler. Many thoughts go out to one's nearest relatives, and it is the longing for home and the thought of the dear ones which is the real source of strength.

So one drowns in an ocean of good intentions, and if only



"PATIENTLY, ALMOST SHYLY, IT ALLOWED US TO PHOTOGRAPH IT AT A DISTANCE OF TWO METERS



" THEY APPROACHED US SLOWLY AND FEARLESSLY, WITH BOWED HEADS AND SHINY EYES "

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one succeeds in realizing a small fraction of them, one will become a shining paradigm for wondering humanity. My memories of the country are my strongest tie. I have never felt really homely in the flats in Copenhagen, for I never get more out of them than just the temporary and occasional which their Danish name implies\*—temporary life in a colony in a street which in no way concerns me, between strange people without the stamp of personality, without rest, without the inducement to enjoy home life which only country life offers.

A big town is like a bird-mountain made by man ; it is well enough for a time, but one soon has enough of the noise, of the screeching auks, the whistling guillemots, the greedy gulls, and from one's inmost heart one longs for the lonely nest of the wild duck by a quiet distant lake, or out amongst the rocks of the ocean where eiderducks ride the crested waves.

Late in the afternoon, Ajako returns from the seal-hunt with no other result than a wetting to the skin. We warm him with a cup of tea and lend him some of our garments until his own shall be dried ; but yet the thawing snow falls quickly and unmercifully.

Next morning I wake up about three o'clock, and no longer hear the snow pattering against the canvas. I turn out and find to my great joy that the snow has ceased to fall and the sky is clear, though as yet it hangs low about the mountain. The landscape is wintry white, so dazzling that one can scarcely keep one's eyes open, and even the rotten water-logged ice is hidden under a beautiful spread of snow. I boil coffee and arouse my comrades. Again a couple of seals have crawled up on the ice, and though they be looked upon merely as will-o'-the-wisps on a marsh, they represent nevertheless some little possibility.

Yesterday we had to kill three dogs because of the lack of food for both men and dogs. So in the beautiful morning we make a big fire and boil the flesh.

\* Flat : Danish *leilighed*, which means literally "occasion."—TRANS.

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By noon yet another seal-hunt is attempted, which, as usual, for three or four hours puts us into a state of violent excitement; once more it is Ajako who risks his skin, but the only result is another drenching.

So we exploit the good weather by freighting the baggage across the big, rapid river by which we have camped; and the first party drives it on the new snow up to the edge of the inland-ice, 6 kilometres from our camp.

### YET ANOTHER SEAL

*August 1st.*—The new month started unusually hopelessly. Pouring rain, no dog food if we were not to broach the glacier provision, and only a few lumps of worn-out dog meat for ourselves; but towards noon the weather unexpectedly clears. As usual, a seal crawled up, though at such a distance that it could not be shot from land. Although the ice after the last days of pouring rain had become mortally dangerous to walk on, Ajako again volunteered to make an attempt. By a roundabout track he approached the seal, for the pools of water were now covered with ice which broke under his feet with such a clatter that the seal could hear it far away. It took some time to get within shooting distance, and also an admirable patience. When the seal suddenly raised its head and began looking around, Ajako had to lie down on his stomach in the deep, cold water and remain there absolutely motionless for minutes at a stretch, until the seal once more went to sleep. Most of us were so excited about the result of the hunt that we could not bear to look at the many stirring details; we went into our tent and flung ourselves down, unable to get up a conversation; our thoughts were incessantly with our comrade who was executing a masterpiece. The shot banged and we rushed out of the tent, the seal did not stir, and a moment later Ajako was beside it and had seized it by the hind flappers.

As I am writing this, both men and dogs are happy and full,



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and yet more than half of the seal has been put aside for the journey on the glacier !

The following day we wake up under a flaming sky, with storm-warning clouds drifting before a strong south-wester in the upper air. The temperature is high, swinging between  $4^{\circ}$  and  $8.5^{\circ}$  (Cent.), and two strongly developed parhelions with rings indicate great unrest in the air, so that once more we must postpone our start. Sure enough, in the afternoon the rain pours down again, and, as usual, we have to creep into our tents ; but the short periods of sunshine and a temperature in the shade which has been right up to  $9^{\circ}$  (Cent.) has helped us so that at last the clothes we must use for the journey along the inland-ice have been examined and dried.

As everything is now ready for the journey and we are only waiting for the weather to clear in order to start, we build by the great river a beacon in memory of Hendrik. Deeply moved, we here remember our deceased comrade, and whilst the others stand about the beacon with lowered flags, I give the following memorial address, first in Danish and then in Greenlandic :

“ Somewhere in my diary I have written that, when a little handful of men like us live ourselves by degrees into a unity on the harsh and desolate coasts, we form, as it were, a small society of our own. The great living world which we left soon becomes so distant as to exist for us merely in our thoughts and in our longings.

“ Our home is the little tent where, tired and hungry, we gather round our experiences after the toil of the day, and our country is that casual strip of coast where for the night we settle down.

“ We live life as it must be lived in these surroundings, simply and primitively ; we execute our task as conscientiously as each man knows how, and in the solving of the problems which the expedition has set us we learn to know each other more intimately than do people as a rule.

“ The best qualities of each man here meet with the weaker ones, but we help each other according to our ability, and,

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with the good comradeship and the joy of labour which from the outset we made it a point of honour to esteem on this expedition, surely we have all experienced that, in spite of all differences between us in mind and in character, for every day that goes, for every good result achieved, and for every difficulty surmounted, we grow in unity, are tied to each other with closer bonds and love each other more dearly.

“What concerns one concerns us all. For here where we have only each other to fall back on, we have a common fate, and common are all the dispensations allotted to us.

“When commonly we feel it so, how obvious then that our unity should manifest itself yet more strongly when the unusual happens—especially when a catastrophe strikes down a comrade.

“Never shall I forget the atmosphere in our tent during the days when we searched for Hendrik, constantly hoping that he might reappear from behind some hill. The uneasiness, the feeling of desperate helplessness, at not being able to do anything, a strain on the nerves which made us all start, listening to every unusual sound which broke the great stillness about us.

“In vain we searched, in vain we stared our eyes tired across mountains and eloughs. Hendrik was destined never to return to share the joys of the home-coming with the rest of us. Never was he to reap the reward for all his faithful helpfulness after toil, and his happy laughter will no more sound for us during the stir of camp-breaking.

“It would be superfluous in this modest memorial address to say anything about Hendrik himself. We all knew him for a brother, and to know him meant to love him.

“We know how out of nothing he created his position, which amongst his people and in his circle was a leading one, and we know with what faithfulness and interest he executed all his duties.

“In Thule his place will be empty and it will be difficult to fill, and never shall I have a helper there who in such a beautiful way will understand how to make the interests of the station

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his own. In Thule he found a field of labour which entirely engrossed him.

“During all his life he had led a nomadic existence—during the *Danmark* expedition on the east coast, where he had rich opportunities to make himself useful to, and beloved by, all his comrades; and later on in various positions on such far-stretching coasts as from Cape Farewell, and now to Greenland’s northern extremity.

“The little orphan boy from Rittenbenk was to die not merely as the Greenlander, but altogether as the man who traversed and learned to know the greatest stretch of his Fatherland’s coast.

“Peace had begun to settle over him, and he was just on the point of reaping the fruit of many years of industriousness, to build house and home, and for ever settle down in the camp which he had chosen so far north—then misfortune overtook him and struck him down, here, far from friends and relatives.

“The Polar Eskimo has a proverb which says that no man will settle down and take up new land for good until death overtakes him and ties his body to a stone mound; first then is it possible to attach a man to a country. I therefore propose that we hold to this idea, born by the enormous spirit of liberty of primitive man, and to this island, where Hendrik found his grave, give his name.

“Hendrik was a Christian man; we all know how fond he was of singing his hymns when occasionally his mind was sad; so before we lose sight for ever of the land where he fought the last big fight alone, we will say the Lord’s Prayer in his own tongue, as a final farewell from his old comrades.”

## CHAPTER XI

### THE HOMEWARD JOURNEY ACROSS THE INLAND-ICE

#### CAMP 1.—DANIEL BRUUN GLACIER

AUGUST 4TH-5TH.—Fortunately we had gradually carried up so much baggage to the edge of the glacier that the remainder could be taken in one load. The distance from the river to the sledges was 7 kilometres, which we covered in five hours. I must admit that none of us is in the condition in which he ought to be when he faces a walk of 400 kilometres. Especially Wulff and Koch are very tired after the comparatively quick walk and complain of the smallness of the food ration which, because of our critical situation, I had been forced to distribute to the expedition. But they fully agree with me as to the necessity for this temporary period of starvation. We are now in possession of provision, divided in half-rations, for twenty days, besides musk-ox meat and some blubber and seal meat reserved for the dogs.

Because of the strenuous march upward we therefore cook not merely a panful of oat-gruel, but also a solid meal of seal meat. The pemmican is not yet touched, although the temptation is great; we must economize, for the position is not without seriousness. We must remember that it was only from a distant height that we had a view of the homeward route which, so far, has led us to this place; only in a couple of days will it be proved whether we are on the main glacier itself. Because of the weather, we had had to abandon any thought of reconnoitring during the time we spent by the great river.

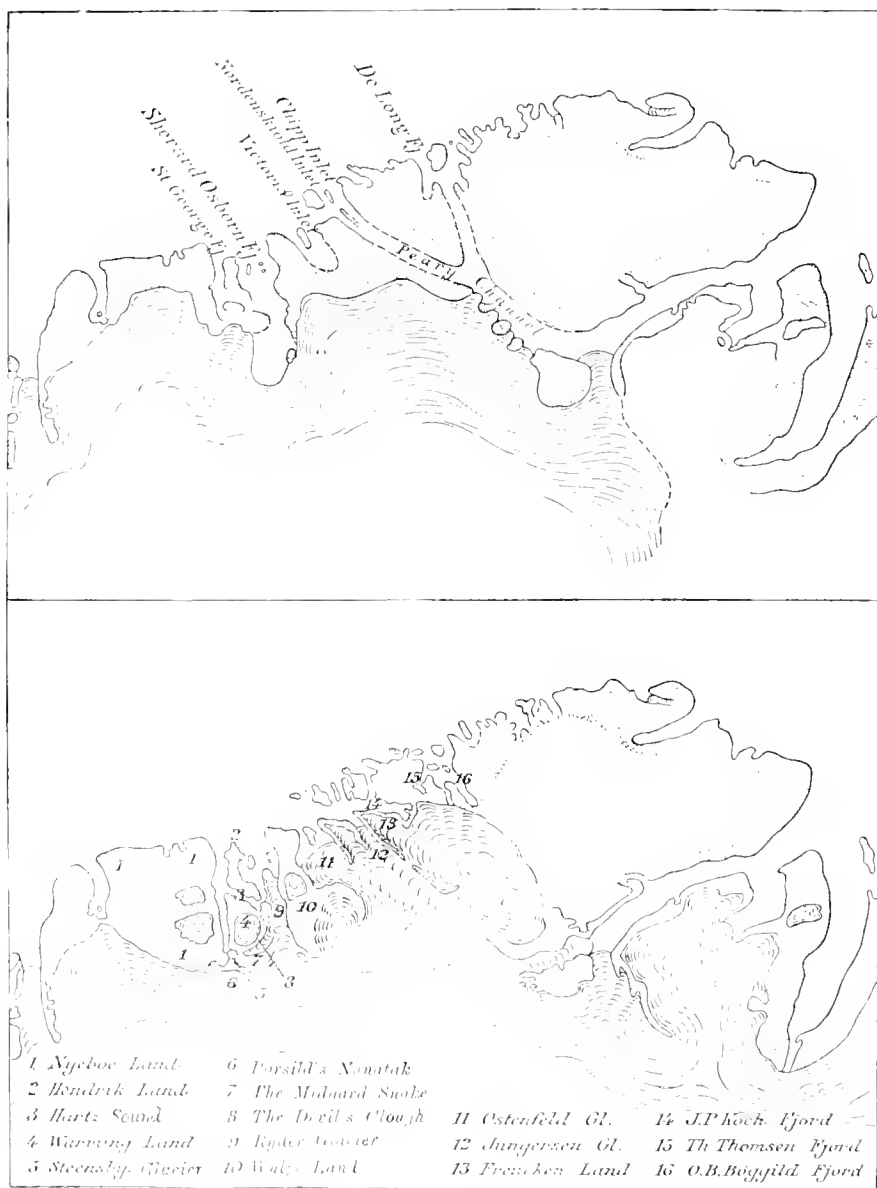
We ascended Daniel Bruun Glacier at a steepish point, and after a march of 2 kilometres we had reached a height of some



ASCENDING THE INLAND-ICE, WITH A VIEW OF ST. GEORGE FJORD



WE ARE STOPPED BY LAND WITH STEEP SLOPES



THE UPPER MAP SHOWS THE NORTH COAST OF GREENLAND AND THE DISTRICT ROUND INDEPENDENCE FJORD WITH PEARY CHANNEL, AS KNOWN PREVIOUS TO THE FIRST AND SECOND THULE EXPEDITION

THE LOWER MAP SHOWS THE SAME DISTRICT MAPPED BY THE THULE EXPEDITION

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900 metres. There was no river, and with surprising rapidity we got on to "dry snow." We then camped, and Inukitsoq and I drove the two sledges with half-loads further in on the inland-ice for the purpose of reconnoitring. Early in the morning of the 5th of August we succeeded in penetrating 5 kilometres further in through deep, heavy snow, and at a height of about 1,400 metres we obtained a view which revealed to us the inland-ice as far as we could see. Due north-east, nearly 4 kilometres off our course, stretched a big cleft with high mountains on both sides, but as far as could be seen from our look-out, it was completely filled with snow further in, and merged into the glacier. By the head of the fjord, on the southern side, shot in a long narrow stretch of land which, furthest away, more and more took on the appearance of Nunatak, but later on it merged entirely into the inland-ice. Between this tongue of land and the cleft we could discern a bridge which, without break, appeared to run onto the main glacier. Here the attempt must be made. The ground was somewhat hilly, and masses of loose snow were heaped up after the many days of bad weather. Although nothing could be decided with certainty, we agreed to continue inward, and with this conclusion we returned to our comrades, whom we roused to a feast of pemmican, oats, biscuits, and coffee.

The temperature to-day in the various places we have passed has been as follows: The river by the fjord was  $5^{\circ}$  (Cent.); the inland-ice, at a height of 760 metres above the sea-level, was minus  $1.2^{\circ}$  (Cent.); and at our look-out, 1,140 metres above sea-level, minus  $4^{\circ}$  (Cent.).

### CAMP 2.—DANIEL BRUUN GLACIER

(1,300 metres above sea-level).

*August 6th.*—We succeeded yesterday in working our way 10 kilometres in on the inland-ice, but it is tough and slow going through the snow. It is a good help that we have over-runners to the sledges, for the dogs quickly grow tired.

In spite of all our reconnoitring, we have not yet succeeded

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in getting a clear view of the route, but the mere fact that we are now so far in that our return to St. George Fjord is improbable is a great stimulant. Yesterday we lost sight of the dead fjord; in spite of all its beauty we parted from it without sadness. The sea-ice, with its thousands of greater and smaller water-holes, looks from the glacier like a large mosaic, until the distance becomes so great that it all disappears as a small bluish lake.

The land behind St. George Fjord extends very far. Ahead of us the route which we must follow is unfortunately already cut by the dark clouds, which always indicate land and not ice. Possibly we may meet with more glacier bridges to make a passage between the cleft-land on our north side and the large new land to the south-west. If, however, we should happen to meet with land, we must get across it with the baggage on our backs.

We are toiling in the heat; the thermometer registers between minus 2°3' and minus 4° (Cent.).

### CAMP 3.—THE MOUNTAIN CAULDRON

(Distance, 13 kilometres).

That which we have feared the whole time has now happened: Daniel Bruun Glacier is merely a local glacier—of great extent, true enough, but nevertheless bordered by land on all sides.

In the afternoon, about four o'clock, we sighted land right across our course. A quick reconnoitring convinced us that it was the cleft which we had already had for a couple of days to the north-east of us. At the point where, from the look-out the other day, I had believed it to be filled with snow merging into the inland-ice itself, it suddenly trends to the south-west, uniting with the land behind St. George Fjord. The cleft, which has a depth of between 600 and 700 metres above sea-level, is everywhere edged by naked, steep mountains which appear to debar any possibility of descent. Inukitsq, who has often proved himself in possession of a sure instinct with regard



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to the finding of a road, is now sent out to reconnoitre. He has an uncommonly independent nature, makes his dispositions wisely and with a sure instinct for doing just the right thing. He succeeds also in solving this fateful problem as after a run of a couple of hours on skis he finds a place which later on proves to be the only way down on the whole extent of the cleft. This result, so significant for us in our present position, was something in the way of a pathfinding miracle, which saved us from turning back to the fjord, where we should have been reduced to living on small, lean sea-scorpions and rattlesnort.

It was obviously not with enthusiasm that we, from the sorely-gained height of 1,300 to 1,400 metres, drove down into a wild and desolate mountain cauldron, where once more we had to start from the beginning, bearing upwards on some snow-bare mountains where driving is impossible. But the thought of the return journey instantly revived our spirits; we could at last see quite plainly the main glacier ahead, which was to be our road home.

### CAMP 4.—THE DEVIL'S CLEFT

*August 7th.*—The distance was only 3 kilometres, but, as everyone knows, one cannot measure work according to the distance covered; the transport was difficult and of long duration. We found a camping-ground on the other side of the cauldron, and a sledge was sent out with a double team to reconnoitre and to freight part of the baggage along.

In spite of the obstacles of the land, it did not seem too difficult to pass. Partly across firs, partly across snowdrifts, to-day we got out of the cauldron. Later on we reached a mountain where we ourselves in several journeys had to carry the baggage across to another fir on the north-east side of the cauldron, and here we stayed for the time being to await the result of the two men's reconnoitring.

The sun is shining and we have the mildest of summer weather with a temperature of upwards of 4° (Cent.). It is as if, after an evil dream, one approaches a new day with the gleam-

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ing light of the inland-ice ahead. The road to the white glacier leads homeward, to all that for which, our work accomplished, we are now longing. Home-sickness has appeared suddenly now when the day is no longer swallowed up by the fight for food; for it is a blessing to know that every day there will be something to eat, even though the rations are small.

To-day we wearily struggled on to the mountain, from which we had a mighty view across a wild canyon which we named "The Devil's Cleft." On both sides 500 metres high mountains fall steeply down into a barren, brownish valley, through which a melancholy little brook winds; the glacier hangs out over the ravines like waves stiffened in horror over the mute uncanniness which rests over this eerie landscape in the midst of eternal winter.

No sign of life, not a bird, not a plant, softens the impression of this utmost desolation, where nothing but a few lichens have sucked strength enough from the warmth of the sun to clothe the sharp stones with a grey, modest cover. Never, it appears to me, have I experienced anything so distant and isolated as this wild landscape, fighting its lonely, stubborn fight against the glaciers which from all sides threaten to pour down over it.

Thus, whilst century follows century, everything changes. Even this desert has had its adventures, for we find great, beautiful branches of coral, bearing witness that even here in this heart of winter was once a tropic climate, where the waves of a living ocean, driven by mild breaths of wind, merrily lapped across the stubborn remains of a bygone period.

There is a peculiar atmosphere in the tent to-day. Perhaps it is the bright prospects, and the weather, which at last seems willing to put an end to the nervousness which, under eternal changes between rain, snow, and fog, has endured for the last three weeks; both the internal and external disquiet have given way to a restful security, and when we are calm for a little while idyllic feelings abide in our tent. During the forced daily marches there somehow is no time for quiet communion; but in an afternoon like this one draws breath and plans the work of all the collections which now we struggle to get safely in har-

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bour. The inland-ice is never a safe route ; if anything happens here all results disappear without a trace, and all our toil and stubborn fights for food have then been to no purpose whatever. The precious articles have now been freighted through water and whirlpools, through clefts and over glacier edges, and immediately another aspect of the problem must be faced. The collections must be brought forward to mankind, and all this makes them doubly precious to one.

Outside the tent Wulff is sitting preparing the only vegetation we have found so far here in the Devil's Cleft, grey lichens covering some of the stones. These plants, which grow right on the very stone blocks, are surely unique in contenting themselves with so little, and I therefore get Wulff to tell me something about their biology.

Lichens are organisms consisting of an alga and a fungus which have united for the benefit of mutual housekeeping. The alga is that shareholder in the limited company which is the sole possessor of an ability to create organic substance out of inorganic matter. The fungus, on the contrary, forms the small aerial roots with which the lichen clings to the substance. The colour of the lichens, as we see it, is a result of the respective colours of the alga and the fungus.

The lichens are highly impervious to drought, warmth, and cold, and are only able to vegetate in turgid condition, but are at rest when it is dry. In this climate they probably vegetate merely a few days in the year, and a patch as big as a penny can often be more than a hundred years old in this neighbourhood, where vegetation is at rest for 350 days of the year. Their chief nourishment they get from the stone through its slight crumbling, and that cannot be much. The lichen thus is a plant which in all its meanness has eternity before it.

### CAMP 5.—THE MIDGARD SNAKE

*August 9th.*—We broke camp on the 9th in the morning, and drove slowly up the great firs of the Devil's Cleft to the north-east. We ascended at an even gradient, groaning under

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a temperature of  $4^{\circ}$  (Cent.) and dazzled by the light, which, reflected from the newly-fallen snow, hurt our eyes. At a height of 1,000 metres we took an observation. We now have a beautiful and grand view across the remarkable canyon and Nunatak—land which, during the last few days, we have discovered across our course. It stretches like a brim of 20 to 30 kilometres broad from the land behind St. George Fjord, with great local glaciers on one side and the inland-ice itself on the other. In an enormous arch it bars our way also in the direction of Sherard Osborne Fjord, and we therefore give it the name of the Midgard Snake. There is no way outside; after a short reconnoitring, we take a bite of the sour apple and once more leave the glacier to drive down on the brim. We find a fine, even ascent and immediately after a cup of tea commence transporting the goods to the inland-ice.

The land was dry and even to walk on, but barren and naked as a desert; not even a tiny river enlivened it—everything was completely dried up despite the great glaciers with their inclines towards the country on both sides. It was one of the so-called karst landscapes where all water oozes down into the soil. The vegetation was accordingly. We found a few poppies, some of which were yet in bloom, small stunted grasses, mosses and lichens, but no animal life. Only a wolf had a long time ago left his imprint in the clay near the place where we pitched our tent to cook a ration of pemmican gruel.

After the meal three men returned to our point of descent, while Koch and I continued to transport the baggage to the glacier.

On our walk we found the jaw-bone of a musk-ox, which appeared to be more than a hundred years old. Close to this was a fossilized piece of an octopus from the Silurian period. These two proofs of former life, the musk-ox and the octopus, have between them a period of probably at least ten million years—a good mouthful on which to exercise active imagination.

After twenty-four hours of toil with the transport we were once more gathered by the tent, sleepy and hungry, but all in good spirits and with a good conscience, knowing that in spite



THROUGH THE BIG ICE LAKES NEAR CAPE MAY



THE ROTTEN ICE IN ST. GEORGE FJORD WHERE MAKO SHOT HIS SEAL

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of the difficulties we had made 22 kilometres forward, half the distance having been traversed twice.

Sleep is sweet as honey and milk after such a day!

Seven hours later we were again in harness. We were in for a race where the lives of the dogs were the stake, for we had only two feeds left and the country south of Humboldt's Glacier was yet 350 kilometres away.

Seven hundred metres above sea-level with the inland-ice on all sides, and notwithstanding this we have 3° of warmth (Cent.) at three o'clock in the afternoon! Some time elapsed in getting properly going again, for tender were our feet after the many small, sharp stones, and stiff were shoulders, neck, and back after the heavy burdens. But I must admit that every man accepts it all cheerfully, and we try to stimulate each other by poking fun at the miserable appearance which many of us present. There is nothing for it but sucking nourishment from one's humour during these days; home-sickness turns us into giants forcing our way through all difficulties, and we do manage surprisingly well. On our meagre rations we toil like Icelandic ponies, or perhaps rather like hunger-hardened coolies. For it cannot be denied that we get hungry all too soon after the meals which we now eat with an almost religious solemnity.

We must try to get out of this desert as soon as possible. A depressing and barren land where the deep silence is unbroken even by the little chirp of a bird or the low murmur of a brook; a remarkable piece of snow and ice-bare karst which might be moved into the midst of the Libyan Desert without causing a break in the unity of the landscape.

We have almost reached the edge of the inland-ice; in a couple of hours this toilsome transport will be a mere memory, and then at length the journey across the next and last big desert will commence in earnest.

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## THE EDGE OF THE INLAND-ICE

(588 metres above sea-level).

*August 10th.*—We reached the edge of the inland-ice at half-past one, after crossing a last turbulent moraine river which we had to bridge with the sledges.

This moment, so significant for the expedition, was celebrated with an additional meal, outside the rations, and an extra strong cup of coffee.

Dead calm, a clear sky, sun, a temperature of 1° (Cent.), satiated men, sun-gleams in our souls!

During the meal we recalled in memory that American National-Economist who proposed that food and not gold should be the standard of value in life. As far as I remember he proposed that edible money should be made out of wheat, for what is a millionaire with all his gold in a desert like this, and what would we be without food?

## CAMP 6.—ON THE INLAND-ICE

(900 metres above sea-level. Distance, 4 kilometres).

We make camp at ten o'clock in the morning after the longest day's journey we have had; 10 kilometres of it went across land bare of snow, wherefore we had to make the distance twice. We got to rest at one o'clock too tired to write.

We awake at half-past seven. After the rest, the soreness of our bodies is apparent with a vengeance. Our loads had an average weight of 70 to 80 pounds, and we carried them incessantly from four in the afternoon until one in the morning, when the inland-ice was reached. So to-day every little movement is painful, but the sky is clean as newly-fallen snow, not a cloud, beautiful travelling, everything once more ready for a long day's journey homeward, so that we may reach the ship and Denmark before the winter.

The Midgard Snake now lies far behind us, and the height we have reached assures us that we have passed all difficulties.



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The glacier is an ideal one, even and bare of snow, entirely free from the system of crevasses which forced Peary and Astrup to set their course further in on the inland-ice.

Temporarily we make a line towards south-west, following the back of the glacier along the land which has just turned up, stretching from the head of St. George Fjord in towards Petermann Fjord. A wild and riven country where deep ravines intersect mountains and little glaciers, obstinately and defiantly contrasting its broken and disquiet lines to the dead monotony of the inland-ice.

We give it the name of Nyeboe Land.

### CAMP 7

(1,200 metres above sea-level. Distance, 43 kilometres).

*August 11th-12th.*—During this time, when we are often in activity for from twenty to twenty-four hours at a stretch, we have, in order to keep our capacity for work somewhat near to the mark, been forced to introduce a slight meal in the middle of our day's march. It consists of a cup of oat-gruel with a few pieces of pemmican, and is subtracted from our regular morning and evening rations and does us extraordinarily well.

With a start at 9.30 in the evening, we make camp at 10.30 in the morning, after having covered 43 kilometres of fine going. It is really a considerable distance. The sledges ran somewhat heavily and we men used skis and snowshoes. In the eternal white surroundings the long walking tour seemed somewhat monotonous, although not really tiring except for the first three or four hours. As soon as one has walked off the soreness of one's body, a good and increasing speed is developed as we gradually approach the time when we have our meal. Thus we adopt entirely the habits of the seal. We have now reached such a height that the rise of the inland-ice is no longer felt; the horizon about us is without a change; only casually do we pass a small ice-clad mountain-top. There is somewhere near 1 metre of softer snow down to the "ice," but the surface carries the dogs fairly well so that it does not trouble them.

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We are excitedly speculating as to how long we may keep this good-going.

The first dog fell to-day in the middle of our day's march, and we drove it to the camp, where immediately it was distributed as food for the other dogs. We do not attempt to hide the fact that the very difficult conditions of the ground and of the transport on Daniel Bruun Glacier, the Devil's Cleft, and the Midgard Snake, have taken it out of us; our faces show that we have become very thin. But our spirits and our will to endure are unshaken.

It is a great boon that we have plenty of paraffin, but of real provisions we possess merely enough for six days. It is therefore desirable that the weather should favour us; it will be awkward if we have to help the remaining dogs to any considerable extent to eat those that fall out. We are forced to exploit as largely as possible the advantage of the feed which the dogs had yesterday, and for that reason we must be content with a short sleep, and we break up after only five hours' rest. Before we start, we put ice under the sledge-runners, as the temperature is now sufficiently low for this purpose. The thermometer registers minus 6.5° (Cent.).

During the march yesterday we were quite suddenly surprised by the visit of a young gull which had strayed in to us. For a long distance it fluttered feebly to and fro in front of the dogs until the wind seized it and carried it further in towards the waste and death. A storm blew it in here, and it was unable to find its way back to the sea again.

### CAMP 8

(1,100 metres above sea-level. Distance, 34 kilometres).

*August 12th-13th.*—To-day we again put ice under the sledge-runners, after first having put skis beneath them. The barometer is falling; in the clouds there is a strong drift from the south-west, and we have a temperature through the day of between 0° and 2.1° (Cent.).

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The first 20 kilometres offered even and firm going, so that in six hours we covered 28 kilometres. Later on the *Föhu*, which we had expected since the morning, came over us; then the snow rapidly grew soft, the sledges went heavily, and the dogs sank through and soon grew tired and unwilling to push on, although three of us walked in front. After a day's journey of 34 kilometres we were forced to stop.

The ski-ing had been excellent all through the day, and the surface of the glacier was so even that the sledges had difficulty in keeping up with those of us who wore skis. Under circumstances like these, for one who is used to them, the skis are far preferable to the Canadian snowshoes, which merely carry one without at the same time giving the gliding speed across the snow.

About two o'clock we sighted the land inside Petermann Fjord, and our course is now abreast of it. It is very stimulating to have a landmark, but unfortunately we shall scarcely be able to pass 80 degrees to-morrow as we have been hoping for the whole time, for with this high temperature going will be bad. Otherwise we have fine, clear, windy weather with summer warmth in the tent.

The gathering clouds from the south-west carried out their threat. Just as we had taken down our tent in order to continue the journey, a sudden change in the weather occurred, with low clouds drifting with great velocity, so that, fearing the approach of a snowstorm, we pitched our tent once more and awaited developments. It turned showery, alternating between snow and drizzle, and we resigned ourselves to it, deciding to take advantage of the storm for a rest—the first since the ascent from the river in St. George Fjord.

Our involuntary stay unfortunately leads to the slaughter of two dogs, partly as food for ourselves, partly for the other dogs. It is midnight, and I am writing these lines whilst the smell from the pot affects me not at all disagreeably. Never before during my fifteen years of travel have I been forced to eat my dogs, wherefore I have always with discomfort, and not entirely without criticism, looked upon the expeditions which wore out

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their dogs to the last rag, later on to eat them. It appeared to me not only unæsthetic and unappetizing, but also akin to cannibalism. It seems entirely different now when we ourselves have to save our lives with dog-flesh ! The unæsthetic and unappetizing aspect no longer exists.

The snowstorm whistles round the canvas and, with our scanty provisions, we feel infinitely far away from humanity. We are hungry, and have been hungry for the last month. So we are merely longing for the meat to be cooked so that our hunger may be assuaged. The flesh looks light and delicious though very thin and sinewy ; but as the steam arises from the pot and fills the tent we imagine that we are going to eat mutton—the smell is similar. And the prospect of every man being satiated, instead of merely “ sticking it ” on a sixth of a ration of pemmican gruel, highly invigorates and pacifies us. What the Devil ! The dog is merely a domestic animal, and all the world over one eats one’s domestic animals !

We are all fighting for life here in this desert ; we toil regardlessly in order to reach the better hunting-grounds, and as we and not the dogs possess the right of the stronger, it is we who eat the dogs. In a position like ours there is no room for sentimentality. Soon or late they would have to die by our hand. On this expedition where they have served us so faithfully in life, let them then also serve us and their comrades after death.

Maybe someone will turn up his nose at this argument. But through half a year we have now got accustomed to accepting our food with gratitude, in whatever form we might receive it ; wherefore, perhaps to a greater extent than man generally, we have had an opportunity of revising our estimation of what a formidable factor an empty stomach is : it does not acknowledge many considerations.

The meat is cooked now, and maybe the meal is a plebeian one, but no appetite in the world is more royal than ours !

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### CAMP 9

(765 metres above sea-level. Distance, 44 kilometres).

Yesterday we at last got clear fine weather with a mild breeze from the south-east and only minus  $1.9^{\circ}$  (Cent.). One cannot recognize the glacier at all in this summer temperature. During the first Thule Expedition we found further in on the inland-ice, at the same time of year, a temperature of between minus  $20^{\circ}$  and minus  $5^{\circ}$  (Cent.). This heat, which in various ways is very acceptable to us, is of course due to the fact that we are so near to the coastland. In strong cold our lean dogs would surely have frozen to death in their thin summer coats.

With a start at 7.30 in the afternoon we succeeded in making 44 kilometres by a fair and even pace until six o'clock in the morning. Unfortunately we have had to give up our small midday meals out of economic considerations; we can no longer afford them. We content ourselves with a cup of tea.

The glacier was firm like the floor of a room, the sledges slipped along easily and without any friction worth mentioning, and our eleven dogs with the two sledges occasionally went at a pace which made it difficult for us to keep up with them. Off the inland Nunatak of Petermann Fjord we passed a somewhat complex system of great crevasses which were connected by wide bridges so that they did not represent much difficulty; we merely had to alter our course slightly in order to get outside. For the present our tent is open with a wide view to the Nunatak which on the eastern side merges evenly into the glacier, but outwardly forms a high and split-up foreland towards the fjord, which we see in a glorious bird's-eye view with blueing cliffs far out in the western horizon.

### CAMP 10

(1,010 metres above sea-level. Distance, 41 kilometres).

*August 15th.*—We had to clench our teeth in order to cover our 40 kilometres to-day. A rough south-wester blew right against us, and the snow consisted of fine little needles which

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hurt us right through the kamiks, breaking under our weight. A wearisome walk! In addition, the journey was at an even upward incline, and as soon as we encountered the slightest rise we felt in our knees that we were exhausted.

As the paws of the dogs began to bleed, we had to sacrifice all our gloves, wrapping them round their feet as kamiks. That was a help.

At a height of 900 metres above the sea-level we came to a lot of great and small lakes, the largest of which had still open water, rippling deep blue and beautiful in the white surroundings. It seemed peculiar here in the midst of the glacier to see these basins of living water, of seas which could be up to 300 metres long and 100 metres broad. We also passed some smaller crevasses and little frozen rivers.

Due west, we had Washington Land in sight all day, with its high steep mountains standing like a wall against the inland-ice. Beautiful white glacier tongues intersected and slit the reddish-brown and yellowish cliffs like mighty waterfalls. Through dips in the land we could occasionally discern the pointed alps of Grinnell Land like fine, violet banks of clouds—a view which encouraged us on the march, and broke agreeably the monotonous plane which everywhere surrounded us.

This voyage across the inland-ice, which has loomed threateningly in the horizon during the last few months, now appears in the light of a pleasant surprise, a final spurt, a reward for all our adversities.

### CAMP 11

(1,100 metres above sea-level. Distance, 35 kilometres).

*August 16th.*—Immediately after the beautiful journey of yesterday a south-wester came up with thick weather, blowing us quickly to sleep. Towards evening it dropped somewhat, and we tried to set off; but after making 14 kilometres we had to call a temporary halt because of the fog and snow, and we took the opportunity to kill a dog which was too exhausted to travel any further. In the course of the night we had a temperature of minus  $7.5^{\circ}$  (Cent.), and the result of this cooling

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was that the sky once more cleared up, so that we could continue immediately after taking a noon observation which showed us that we were on N. Lat.  $75^{\circ} 45'$ . After 20 kilometres' march we had again to stop because of thick weather and snow, so we definitely made camp for the day.

### *Over a Pipe of Tobacco.*

*August 17th.*—It blew bravely last night, it beat and whipped across our thin canvas tent, which has now the appearance of a veteran; and as we have no sleeping-bags and our clothes are wet with the perspiration of the long marches, our sleep was interrupted by little shudders of cold and frequent stamping of the feet.

In the middle of the night, after only two hours' sleep, I light my pipe to think seriously about the position. Apart from our dogs, which are no longer in the best condition, we have provisions merely for two or three days. The only thing we possess in abundance is paraffin; therefore another week will be possible on boiled dog meat—if one can really call that thin bony food by the name meat. A more serious thing is that, in a couple of days, we ourselves must pull the sledges when the dogs can carry on no longer and are reduced to being food for man. We yet possess nine, but their number speedily decreases. Also other circumstances contribute to the desirability of reaching land quickly. Harrigan carries a swollen hand in a sling; Koch has just got over an awful gunboil which closed entirely one of his eyes, and he has now acquired a choicely vicious boil under the nail of the big toe. Wulff is walking, to speak plainly, with a boil on his behind, which I am daily doctoring, and all these little painful incidents, in addition to the daily semi-starvation which gradually develops into a downright feeling of hunger, necessitate that we should as quickly as possible find land and hunting. We had hoped to be able to reach the land behind Marshall Bay, but it now seems improbable that we can cover the remaining 200 kilometres. I therefore decide, after this night's communion with myself, to try a descent in the neighbourhood of Cape Agassiz. From

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there it is only 250 kilometres to Etah, the country of hares and reindeer.

As a light in the distance shines the possibility of meeting my ship, the *Cape York*, at Etah in the beginning of September, and the thought of getting home to Denmark this autumn undeniably stiffens our energy considerably.

### CAMP 12

(1,130 metres above sea-level. Distance, 21 kilometres).

*August 18th-19th.*—At eight o'clock in the morning we set off, but it was soon apparent that it would not be a good day. With the wind half a point abeam we walked heavily through a very strong drift of south-south-west. Now and then the gusts would be so violent that we tottered on our skis, but on we must go, the knife at our throats! I was on the point of being overwhelmed by tiredness a few times during the fight against the rough snow-showers, but there was nothing for it but to swallow the pain and forge ahead. With our decreasing provisions this was an uncanny race. Stubbornly we toiled ahead for five hours until one o'clock; then suddenly the drift increased to a storm which swathed us all in white layers of snow. We stopped on the spot, as all resistance was in vain.

To pitch the tent in weather like this proved both a fight and an art, but we did succeed. It was impossible to clear anything of snow, and all baggage was quickly thrown into the tent in its snow-covered state, whereafter we ourselves sat down in a circle like perching hens and let the storm blow. Such is the situation whilst I am writing this. The *Föhn* has thawed the snow in our clothes and we are wet through. The fine "snow-sand" of the glacier drifts in through the seams of the tent and covers us; but we try to take it all in good spirits, singing American football songs which we remember from McMillan's gramophone whilst we cook a panful of pemmican gruel.

A few hours later the violent showers, which threaten to rob us entirely of our old tent, cease, and the wind becomes a steady and persistent gale. Having eaten the gruel, we lie down to sleep, leaving the storm to its own moods.





THE BIG RIVER BY THE TEST-CAMP IN ST. GEORGE FJORD



## THE HOMEWARD JOURNEY

Eleven o'clock in the evening. The same weather, the same wind. To sleep again.

We turn out again, but find the same weather and the same wind. Despite our hurry, then, we are weather-bound for another day; and whilst previously we have been starving on days when we did not travel, we dare not do this again, as in our present condition it would weaken us too much. So we cook our cup of coffee, the last but one, and a cup of thin pemmican gruel. Our entire provisions now consist of a pound of pemmican for each man, and the distance to land must be at least 100 kilometres. But the barometer is rising, and we pin our faith on a speedy change in the weather.

Twelve o'clock noon.

The same weather, the same wind, but less violent, and the snowdrift is decreasing. We have had to kill two dogs for a meal for ourselves and the seven animals we have yet left. Once more we are squatting on our heels in a ring in the tent, gathered about the warming Primus, which will soon make the pan boil.

Three o'clock.

The barometer, which had risen somewhat, falls again, and the thickness about us prevents us from setting a course for the time being.

One o'clock, morning.

*August 19th.*—Same weather, same wind, and despite all impatience to get away whilst we have yet a couple of dogs left, we are forced to hibernate like bears as long as the storm lasts, sleeping as much as possible. Even if we could keep a fair course by the aid of the wind, we dare not set out in the thick snow, as we cannot be far from the edge of Humboldt's Glacier. Unfortunately we possess neither the bear's capacity for sleep in our cool den, nor its capacity for doing entirely without food; so we often wake up from dreams which maliciously emphasize our situation. Thus I now woke up after the following dream:

I am at my father's vicarage at Lynge, standing with my mother in the larder, where is to be found a drawer which is always full of cakes. Mother has just finished baking and put

## GREENLAND BY THE POLAR SEA

two lovely warm Christmas cakes into the drawer, sweetly fragrant with delicious ingredients, bristling with raisins and citron. She cuts a couple of thick slices for me, saying in her gentle voice: "There you are, my boy; eat as much as you like!" As I raise the delicious cake to my mouth, I wake up to all our misery.

My comrades are lying asleep, the wind is whipping the drifting snow around our tent, and an exhausted dog is lying out in the drifts, whimpering pitifully.

Four o'clock in the morning.

There is hardly any wind now, but the snow is falling more heavily and our little camp is quite wrapped up in a white thickness. Again I awake from a mocking dream, and as compensation we make coffee from the old grounds and distribute half a rye biscuit to each man. The coffee pours like a warm wave through our bodies, and with pipes between our lips we meet the day in good spirits. It will all come right in the end! It was from our own free choice that we left the comforts of home; but how keenly we shall appreciate it all when once we return!

Half-past six o'clock.

Half an hour ago a gleam of sun penetrated the canvas. We immediately arose from the different postures in which we had attempted to rest, and gave vent to our jubilation. The teapot was put on, and a sixth of a ration, exactly a mouthful of pemmican for each, was distributed together with one of the small biscuits. The horizon is yet hazy, but above our heads the blue sky is breaking through, and we may hope for travelling weather towards noon. There is once more a fresh note in our voices, and bright prospects for the coming day.

### CAMP 13

(800 metres above sea-level. Distance, 35 kilometres).

*August 19th.*—Thanks to the excellent going, we are now 35 kilometres away from our bad weather camp. The snow was so firm after the storm that we required neither skis nor snow-  
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shoes. We walked from ten in the morning until half-past eight at night. One of the sledges was pulled by three dogs and the other one by four, and the persevering animals managed very well during the day.

When we began to move after the days of rest occasioned by the snowstorm we felt very weak in the knees, but we quickly beat the weakness down, putting our best leg foremost, especially as the clouds still looked threatening and a fresh storm might interrupt our journey at any moment. Fortunately it proved to be merely a threat. With great velocity the clouds raced above our heads before a south-west gale; later in the day their speed decreased and the sky assumed a more quiet aspect.

The last 15 kilometres of the journey we were much hampered by crevasses, presumably local ones, as they were all situated in the vicinity of an elevation where the ice appeared to have cracked through its own tension. They were of an unusually deceitful kind, merging entirely into the surface of the glacier and in most places covered by thin bridges, so that it was difficult to notice them in the hazy atmosphere. Once Wulff was on the point of falling through, but fortunately he hung by the arms, so that I was able to get hold of him and pull him up. The crevasse was narrow at the top, but widened out downward into a dark, bottomless abyss. After this dreadful experience we tied ropes round our waists and continued our march without further obstacles.

We have had to kill another dog.

At the beginning of our day's journey we sighted land due north-west—probably Cape Forbes and its westward continuation. About half-past three more land became visible, and we thought we recognized Cape Webster. From our point the land inward looked like a multitude of little seas in a frozen ocean.

*August 20th.*—It was one o'clock when we went to rest, and already by seven o'clock we had to set to, cooking our last cup of coffee and the last but one portion of pemmican gruel. A person who has not been starving is unable to understand

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how wonderful food, real food, tastes under such circumstances. The small dry biscuits which for the last few days we have used as sugar for coffee and tea possess an aroma and a savour which one does not notice at all when one has access to plenty; and the oaten porridge, which during our wintering we looked at with contempt, affects us like caresses; we are agreed that we would all be happy for life if we could only have sufficient *Avena* oats.

The weather is continually disturbed, but as the sun breaks through at eleven o'clock we set off. The entire journey of the day goes across slippery ice covered by a layer of new snow; we often fall and the dogs, which continually walk in kamiks, find it difficult to get a foothold. We pass some small crevasses and a number of dried-up sea-basins and river-courses. The first great river-course is passed 16 kilometres from our previous camp at a height of 750 metres. The inland-ice during our journey to-day appears to have been subjected to a severe process of melting; the surface consists entirely of tiny, fine grains which inflict considerable pain on the dogs. Our route lies across an even terrain faintly sloping towards Peabody Bay, where all rivers find their outlets.

### CAMP 14

(600 metres above sea-level. Distance, 30 kilometres).

The sky threatens us constantly with *Föhn* clouds. The minimum temperature of the night was minus 5° (Cent.), whilst during the forenoon it rises to 1° (Cent.). A ring forms round the sun, gleaming viciously with parhelions. It looks beautiful, but our thoughts centre round the evil meteorological promises which it gives.

To-day we still drove two sledges, each pulled by three dogs. Although we had to assist, the dogs were yet an invaluable help. We made good speed all during the journey, and by seven o'clock we were able to camp with a view of Peabody Bay, mostly ice with occasional holes of open water. We are probably 25 kilometres from the edge of the glacier, and Washington Land has been visible almost through the entire day.

## THE HOMEWARD JOURNEY

Again a dog has to be killed.

It was the best dog we had yet tasted, despite which I was seized during the meal by a sudden feeling of discomfort, so strong that, notwithstanding my hunger, it was impossible for me to eat any more. According to our calculations we should now be some 30 kilometres away from the land round Cape Agassiz—"the great land without mountains," as the Eskimos call it—and here we hope our bad experience will have an end. Just think of tallow and fragrant reindeer meat, and probably a delicious autumn hare!

### CAMP 15

(600 metres above sea-level. Distance, 12 kilometres).

*August 21st.*—The day begins with the cooking of the last portion of pemmican gruel, and a thin one at that, for there must be sufficient to go round. But however thin it may be, it lies like cotton-wool round our vitals, refreshing us with its substantial taste. At the same time the last biscuits are distributed, four to each man. If only the weather will last things do not seem too black, for we have five dogs, which constitute sufficient provisions if unforeseen obstacles do not delay our descent to land. The weather does not promise well; we have a positive temperature of  $3^{\circ}$ , which is never a good sign on the inland-ice; furthermore, the clouds are coming up with the velocity of a storm from the south-west. We leave behind us everything that is unnecessary, both skis and snowshoes, and hasten forward.

The glacier is firm and bare of snow; it consists of little sharp needles which hurt us and the dogs, and as the animals wear out their kamiks we tie up their paws in bits of an old towel.

### LAND AHEAD

At twenty minutes past one the great moment of the day and of the journey arrives: Land ahead! Involuntarily we all hail the saving coast with loud cries of joy. The dreadful tension of the journey seems at an end. The expedition is once

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more on the safe side, and we can see a happy finish to the death march of the last few days.

What matters it that our joy is very quickly interrupted by bad visibility and pouring rain? We have seen the land and we know that we have the strength to reach it! At four o'clock in the afternoon we pitch our tent and again kill a dog. It all seems to us merely a small trial for the exercise of our patience; there is land ahead where men live—the blessed land of reindeer!

Four o'clock in the morning.

The violent rush of a river suddenly bursts through the ice-cover right by the side of our tent, frothing and roaring to a breadth of 30 metres. We rush out in the belief that we ourselves will be swept away, but fortunately it is only a temporary outbreak, which quickly subsides.

It has been raining hard all night, but now it has ceased. We will attempt to continue.

### CAMP 16

(620 metres above sea-level. Distance, 20 kilometres).

*August 22nd.*—The rain and the continuous mild weather seem to threaten us with calamity. In all dips of the ground great and deep rivers break out, causing us the greatest difficulties. These rapid, broad glacier torrents are surely the greatest danger with which a glacier traveller can meet; for if he slips during the crossing, or loses his foothold when he jumps, he will without fail be carried along the shiny bottom and swept to perdition as the river pours out into the ocean itself.

There were three great courses which caused us especial difficulty, as in several places the run divided into as many as eight rivers. Wherever practicable we made a bridge of the sledges, experiencing during these crossings some of our most exciting moments, particularly when the collections had to be brought across. Often these had to be thrown with a sure aim from one side of the river to the other, and seized on the other side with the same accuracy. A slight twist of the hand, a wrong step of



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the foot, and the result of all our five months' toil would have been irredeemably lost. After twelve severe hours, during which we zigzagged and often made great detours, we found ourselves 20 kilometres away from our last camp, so that we really ought to have been down on land if only through the day we had been able to keep a straight course. On a dry elevation we rested, intending to continue about an hour later; but unfortunately we found that Dr. Wulff could not go further on this day. All through the day he had felt exhausted and looked ill, but I had hoped that a few hours of rest and a little dog meat would before long enable him to continue; for we had only three lean dogs left, and there was no knowing what obstacles the rivers or the descent to land might confront us with. We faced the situation openly and without attempt at camouflage. When we struggled with the sledges we felt dizzy and weak in the knees, and all sudden exertion made the blood retreat from the brain.

The fog has once more settled on the land which we must cross, and for the moment we do not know where we are. All through the day we have waded through water, and our feet are cold and wet. Numerous little pools have formed on the surface of the glacier, and the bottom of these consists of sharp, painful grains of firn. It is a comfort that we now discover everywhere quantities of "land-dust." A small sea-king swims merrily on a frothing river from the inland-ice and seems quite pleased with the slide it has found towards the sea. Further, we have seen two ivory gulls. Once more we must kill a dog and, without pitching our tent, as it is calm, mild weather, we eat it with a good appetite.

Eight o'clock in the morning.

To ease the load, we threw away a few days ago all our ground-skins, and now, so that we shall not lie on the bare glacier, we spread out the tent and lie down on it. Through the night a heavy fog has hidden all surroundings from us. It still hangs about, and although we are unable to find our bearings we must continue. A great frothing river is visible ahead of us and, to begin with, we make for that.

## GREENLAND BY THE POLAR SEA

2.30 afternoon.

The glacier river, which proved to be a frothing ice-stream of 60 metres breadth, nearly destroys all our hopes; for at the point where we struck it it was so deep that there was no possibility of fording it. After a long reconnoitring I succeeded in finding a place where the water reached us merely to the hips, and as the current seemed to be less violent here we made the attempt. We succeeded, and in the course of a couple of hours our instruments and diaries were safely deposited on the opposite shore.

This bath, with its accompanying strain and excitement, told on us so much that once more we had to prepare a meal, so we killed our third dog. The one which we killed yesterday provided merely one poor meal for the six men and the three dogs. The fog which has all day been lying clammy and close around us now seems to lift. The sun is on the point of breaking through, and a blissful warmth begins to stream through our bodies, which are icy-cold under the wet clothes. We now attempt to set a course straight on land towards the south-west.

### CAMP 17

(525 metres above sea-level. Distance, 15 kilometres).

After a day's journey of thirteen hours we had to make a halt by a great river, which we have not had the strength to cross to-day. Comparatively soon after we broke up from the place where we took our meal yesterday, we sighted land. Our course is straight and the remaining distance must be scarcely 20 kilometres. But a mighty net of rivers so far separates us from it. About eight o'clock yesterday we had to wade across a deep river which was some 40 metres broad, and where the water reached us to the waist. The cold water told chiefly on the muscles of our knees. We have to pull the sledges ourselves now. In the evening another dog is killed, as we prefer to transport its flesh on the sledge; we have now only one left.

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### CAMP 18

(430 metres above sea-level. Distance, about 10 kilometres).

*August 23rd.*—The new river which yesterday completely unnerved us was crossed with surprising ease. Only the fog seems disinclined to leave us, but we hope that our course is the right one. A number of smaller rivers are passed in alternate drizzle and sleet.

At five o'clock in the afternoon, in the midst of fog and hopelessness, we see the first sign of life from land—a small fly buzzes past us right up on the ice! It affects us like the olive-branch of Noah's Ark, and this enlivening experience is a good pace-maker.

We follow an ineline leading towards a dark bank of fog, which has the appearance of land. We advance quickly until we reach a large, very beautiful glæcier lake, with an affluent river forming a deep canyon in the glacier. The sea has wonderful colours—green along the shore and dark blue in the middle; along the shore lie big ice-blocks, tall as a man. The crossing of this river required all our strength. Furthermore, the fog grew so heavy that we dared not continue our course. The snow fell closely and we had to seek the shelter of our tent. Our wet clothes feel like cold compressions round our limbs, but fortunately we are so tired that we quickly go to sleep.

The glacier has during the whole of our day's journey been very porous, with large pointed ice crystals and deep round Cryokonite holes.

### THE LAST DAY ON THE INLAND-ICE

*August 24th.*—Twelve o'clock noon.

During part of the night I was awake, as I had to keep an eye on the weather; for as soon as it clears the least bit we must continue in order to get down to land and safety.

Wulff's increasing exhaustion is a source of great anxiety to us; when, after a rest, we have been walking for three hours, he lies down and declares that he can go no further. We then

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stop, make him a strong cup of tea, and refreshed by this once more he quickly continues in good spirits. But he is as thin as a skeleton and the expression in his eyes becomes weaker and weaker. As long as we had the small rations of pemmican and Avena oats he kept up surprisingly well and nearly always was to be found with the foremost. But apparently he cannot digest the dog-flesh, and he gives away the better part of his ration in spite of our protestations. The rest of us can manage for a few days more. If only the visibility were better—we are really quite close to land!

After short, refreshing sleeps I start up to look at the weather—I have merely to put my eye to the canvas, which is full of holes—but every time I meet only the same heavy fog and sleet; only the uncanny rush of rivers can be heard around us.

At length weariness overcomes my watchfulness, and I sink into a good sound sleep, during which my dreams, as is usual at this time, carry me away from the seriousness of the moment and towards the longings which alone prevent me from falling into complete exhaustion. When I wake up it is beautiful weather; the fog has lifted and the sky seems to be clearing up. I arouse my comrades and make a cup of tea. Then at half-past nine in the morning we start. We speed ahead as well as we can with our sledges and our goods, and after a good hour's walk we sight the land towards which we are rushing. We keep our constant course straight on to it; many details are now visible and the distance cannot be great—perhaps merely a good six miles. The distance is nothing, but the great rivers may prove severe obstacles in our way. It may take us several days yet in the worst case, but only a few hours if we are in luck and do not meet with difficulties when we descend.

Our excitement is intense. Every hill of the glacier which we ascend gives us a sure view of the land; then the fog once more rolls up from the horizon in the west, and in a few minutes the land we are steering towards has disappeared in grey banks of fog.

Once more we must stop and sit inactive on our sledge, hungry as wolves. What good is it to sit here in glorious sun-

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AT THE BRINK OF THE ABYSS, THE DEVIL'S CLEFT



THE DEVIL'S CLEFT

## THE HOMEWARD JOURNEY

shine when we are robbed of our view ahead! I consider our position and decide to kill the last dog. For if we become too exhausted we shall be unable to hunt when we do reach land; so let us stake everything on one card and eat the poor animal. Merely one tube of glycerine is now left to us.

Three o'clock in the afternoon.

We have reached land, we have returned to food and to life! We have escaped from the terrible embracing of the inland-ice! The expedition and all its results are saved! Only one who has experienced excitement similar to that of the last few days will be able to realize the feelings which flow through us!

Ajako's reconnoitring took the following course:

After a couple of hours of absence his form appeared out of the fog, and at a distance we could see from his walk and from the movement of his arms that he brought good tidings. He was wild with joy. Not merely had he found a place of descent to land, but he had also been on it, seen a hare, and found tracks of reindeer! We received him with loud shouts of rejoicing and in a moment we were all on our way down through the fog.

The place of descent was steep, and we had to retard the sledge with straps fastened under the runners; but after a daring descent we landed on the steep cliff to which a narrow little tongue of glacier led across like a bridge. For miles on both sides we saw the steep edge of the inland-ice; thus half blindly we had found the only place where descent was possible. With an indescribable feeling of happiness and relief we jumped on to land and soon after all the baggage was in safety.

Only the sledge remains on the inland-ice, its snout turned towards the cliff walls; standing there alone and abandoned, in this landscape it looks like a wrecked ship.

We yet possess a spoonful of tea, and hurriedly we boil a kettle of water. There is loud good-humour in our little camp, for in half an hour all men will be hunting.

# GREENLAND BY THE POLAR SEA

## THE SITUATION IS DISCUSSED

First we call a council, as we are accustomed to do on serious situations like the present. We all agree that our arrival on land means salvation, for on this very land where now we set our feet the inhabitants of Etah are hunting hares and reindeer every autumn. On the other hand, it is clear to us that the remaining 200 kilometres to Etah is a serious distance for men so exhausted as we are.

Dr. Wulff immediately declared that he cannot continue at once. Koch also is of opinion that he requires a couple of days' rest before he will be able to undertake the long walk. But, on the other hand, various circumstances make it essential that we should reach men as speedily as possible. First of all we do not possess ammunition for a prolonged stay here. Secondly, because of the water, our clothes are so far gone that our lives will be endangered unless we fall in with people before the approach of the first cold of autumn.

So we agree that Ajako and I must go to Etah for relief; we are both of the opinion that we are able to set out for the long walk without a preceding rest. Harrigan and Bosun remain in order to hunt for Wulff and Koch, who have no longer strength to pursue the game.

Ajako and I reckon that in this stony and cleft land, intersected by a number of great rivers, we shall hardly be able to make the journey in less than eight days, considering the bad weather. Then the relief sledges have to be fitted out, and this will take at any rate twenty-four hours. At this time of the year people have not yet their sledges ready for use, and these preparations require time, so that the relief sledges could hardly be here for twelve or fourteen days.

None of us consider it advisable to remain here for such a long period. The neighbourhood will be quickly exhausted of game, so the best thing is to move the camp towards Etah in short daily journeys. For other reasons also this arrangement is desirable.

Ajako and I reckon on the probability of being so com-



## THE HOMEWARD JOURNEY

pletely exhausted by the time we find people, that neither of us will have strength enough to return with the relief sledges. These will have great difficulty in finding our comrades' camp in this moraine tract, full of seas and knolls, so that one point looks just like another. We must therefore agree upon a point where those who are to be saved can be found without delay. In the near neighbourhood it is impossible to point to such a place; but behind Cape Russell, in the immediate vicinity of the inland-ice, there is a big lake known to Harrigan from previous reindeer hunts, and with which all the inhabitants of Etah are familiar. We decide that our comrades must move by short journeys to this spot. If the place is not reached by the time the relief sledges are expected to arrive, the two Greenlanders can easily be sent ahead to communicate with the relief party.

I advise my comrades not to take too long a rest; when in our exhausted condition one suddenly omits to keep the body in motion, the weariness with all its pains will be felt doubly when once more one has to continue the journey. The ammunition is distributed so that Dr. Wulff's party gets eighty cartridges of small shot and forty rifle cartridges, which should be sufficient for the period of waiting, whilst I myself take a Winchester and thirty cartridges. As soon as all the details are arranged the three Eskimos set out hunting whilst we others remain to arrange the baggage. . . .

Early in the morning of the 25th I go up into the mountains to look out for the hunters, and meet Ajako some distance inland with a first bag of five hares. The next few days again seem lighter to us. May Ajako and I have strength to get quickly into communication with people and get speedy relief for our comrades!

The fog has been lying thickly across the land since we arrived, but about six o'clock in the afternoon it clears up somewhat, and in order to make the most possible out of our opportunity to get a view of the land, which neither Ajako nor I know, we set out on our walk. We bring merely the strictly necessary things—our kamiks, my diaries, and nothing else.

## GREENLAND BY THE POLAR SEA

We part from our comrades in the best of spirits after a feast of newly shot hares. The camp on the steep cliff seems like a fairy tale; the glacier rolls towards it like a frozen ocean, and we ourselves jump about on the stones like shipwrecked men just flung on land. Dr. Wulff has made for himself a comfortable little sleeping-place on a moss-clad shelf; smilingly he waves good-bye, calling to us: "Now don't forget to send some pancakes with the relief sledges!"

Harrigan and Bosun have not yet returned from their hunt, and this long absence is not merely a good proof of their stubborn endurance, it also gives us fresh hope that perhaps they have succeeded in shooting a reindeer; and reindeer tallow is the article of which we are most in need.

## CHAPTER XII

### SEEKING HELP

#### FIRST DAY

**A**UGUST 25TH-26TH.—Ajako and I begin our walk cheerfully and in excellent spirits. It is beneficent, relieving, and reviving, to walk across this big land which seems to teem with life—at least, it appears so to us after many months of walking in the desert. Everywhere a wealth of flowers thrust up from the soil, and we do not tire in our admiration, especially now that the autumn has splashed its strong, fresh colours over the whole landscape. I am chiefly impressed by the vigour with which the Polar willow has developed. Its big bold leaves lie everywhere beneath our feet, now flaming in red hues like wild vine, now shining yellow like ochre between the crimson saxifrage and green heath; even the whortleberry plant, which unfortunately does not bear any fruit, has gleaming red leaves.

The life of summer has passed its climax, and autumn has dressed everything in festive garments; the coolness has announced itself before the cold, the colours before the snow—a last blaze-up before the sleep of winter.

On thick, soft moss we walk along the small mountain-rimmed lakes, which wink at us like black, deep eyes. For every kilometre we pass new lakes, which unfortunately often force us to make long, toilsome detours. However much we are desirous of making haste, our road goes in large bends and turns, continually up and down across beautiful and wild but exceedingly difficult cloughs.

To the north-west we have all the little islands of Peabody Bay in the corner towards Humboldt's Glacier; a thick fog yet hangs above that quarter, hovering like the steam from the

## GREENLAND BY THE POLAR SEA

“Mosekone’s”\* brew over a Danish meadow. The many rivers from the glacier and from the land have swept away the ice along the coast, and for the first time we look across a stretch of real, open water. It is dead calm, and only the drift of ice-floes on the current gives some movement in this mighty landscape which the lifting fog gradually unveils for us. There is an idyllic beauty over the many little lakes and islands, and the low land down towards the bay; and Ajako and I are agreed that some time it would be good to winter here. Round the head of Advance Bay ruins of old winter-houses are naturally to be found.

The ocean is full of seals, the bear begins his exciting wandering as soon as the ice lies, and everywhere in the lakes there is sure to be salmon. The reindeer stalk across the land and hares seem to abound; they jump up before us, running away in confused haste behind the nearest mountain, not knowing that for the time being we mean to do them no harm. As there seems to be plenty of game here, we have decided not to hunt until the evening meal, when the march of the day is finished. We are yet so exhausted that even the lightest of burdens weighs heavily on us.

From a mountain-top we get a view across Humboldt’s Glacier; evenly and quite without crevasses it extends northward. Only the many rivers we have had to pass break its surface with deep furrows; if one listens, one hears the enormous boom from the watercourses. It is good to be on land now. The glacier appears to be without movement, and only low, little pieces of Sikûssaq float in the bay, which is partly frozen.

By midnight we pass a big oblong lake with an unusually powerful affluent river. We follow the river for some distance, looking for a crossing; but as it is everywhere frothy and with a strong current, we decide to wade across it. I slide on a slippery stone, fall and get soaked through. Not very comfortable for one who has to sleep in the open in the same wet clothes

\* Mosekone = “Bog-woman”—one of the many Danish fairies.—  
TRANS.

## SEEKING HELP

and without a cover ! Never mind, a healthy body is a patient tool !

In the morning we reached the plateau behind Cape Scott. Just before this we had to wade through a river. Across the river the landscape changes entirely in character. It becomes more desolate, more stony, and suddenly it seems as if all the hares have disappeared into the ground.

At seven o'clock in the morning, after a walk of thirteen hours, we stop and cook a young hare which we have shot on the way. Then we survey the land to make sure of the direction we must take before the fog comes. We are now up on a uniform tableland which has none of the many cloughs and lakes we met with to-day ; we shall have quicker going to-morrow.

At eleven o'clock in the morning we lie down, each by his stone, to get a little sleep before we set to once more.

### SECOND DAY

*August 26th-27th.*—At three o'clock we wake up, and as the sky again looks threatening we agree that it is wiser to hurry on towards better hunting-grounds.

During the first part of our journey the tableland is of a kindly character, with plains of grass and little lakes. In many places we find fresh tracks of reindeer, and we keep hoping we shall have the good fortune to shoot an animal ; we might then be able to rest a little and have time to dry our wet clothes. But as evening approaches the treacherous fog comes up behind us from the north-west, and the land becomes more barren ; at length the grass plains stop entirely and we are now walking on sharp, naked stones.

During the night we reach a large lake which borders right on the inland-ice ; the old winter ice still lies on it, only one of its banks being opened by a river which runs out of the lake, foaming big and white between enormous stones. It does not look tempting—the sight of it is like a grip round my throat. Am I to fall again now ? The weather is raw and foggy, and I am faint with hunger.

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But when things look blackest we generally find the easiest way out. Without unnecessary hesitation Ajako and I seized each other's hands, and thus propping one another up we went out into the water. We got thoroughly wet, but neither of us slipped and fell. This good luck encouraged and strengthened us as much as a good meal could have done.

On the other bank of the glacier lake we found an absolute stone desert consisting entirely of big loose moraine stones; a multitude of larger and smaller lakes filled the landscape, which was practically without vegetation, and often we found ourselves forced to keep our direction by making considerable detours. Yet one river we must wade across; we are now in good practice, and our feet have been wet for these last two or three months!

### THIRD DAY

*August 27th-28th.*—We tried to sleep last night as well as might be, each, as usual, by his stone. But it was almost too cold in our wet clothes, on which the fog settled so that our bodies became quite white with hoar-frost.

Every time I slept I dreamed about my home. Such dreams, beautiful and pleasant during sleep, are extraordinarily exhausting, for as soon as one wakes up and must turn to, reality always seems doubly rough and hopeless. On the other hand, it arouses such a lively feeling of what is owing to those who are awaiting one's return, that immediately the teeth are clenched and obstinacy is summoned to fight the adversities which are breaking one's strength.

About seven o'clock the fog lifted somewhat, and at once we got to our feet and turned towards the places where we might find something to eat. A tough will to endure strengthened us both; although we had tasted no food for nearly two days we did not feel any weakness.

Every time we pass a deep cleft we spy in vain for a small white dot—a hare. Reindeer we dare no longer hope for.

Once, as we get a view over an unusually hopeless stone desert, we settle between us that we can manage to continue

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for another two days and nights without food ; we both feel that we are able to do this, and by that time we must surely be on better hunting-ground.

During this discussion I say to Ajako :

“ Even if we shall hold each other by the arms for support when we begin to totter with exhaustion, we will continue our walk ; we will not give in as long as we can crawl.”

Ajako nods as he answers :

“ Shall we decide that neither of us will mention food again ? ”

After that we get up and continue.

Due west-south-west we pass a big lake in the midst of the mountains ; fortunately, we do not come across its outlet, but set our course through a valley-like clough, where, as in other and more fertile places, we find not a few bones and antlers of reindeer.

By noon we spy a little white dot in front of us, and both stop as if nailed to the ground. A hare ! Meat for the pot, food for the stomach, marrow for the bones !

Half an hour later we are sitting cooking it by a big flaming fire. All adversity forgotten, all weariness has left our limbs. As soon as we have eaten we will continue ; but first the meal. Fortune has favoured us. The hare is fat, like a young reindeer with thick, white, fat round kidneys and pelvis ! And the blood we have poured into the soup—oh, how good it will be ! But now when we have seen the meat it is as if hunger wakes up and tears savagely at our vitals ; so immediately we eat the entrails raw whilst we wait for the pot to boil.

Half an hour's walk from the place where we cooked our meal we reach a lake which we presume must be the well-known ice-mountain lake behind Cape Russell, the place where the relief sledges are to meet our comrades. The lake goes right up to the glacier, and a couple of largish ice-mountains float on it. We have travelled upwards of 100 kilometres ! It is a great spur to our pace, and unconsciously we speed up.

To pass the sea we have first got to cross three rather large

## GREENLAND BY THE POLAR SEA

effluent rivers. The first of them is deep and the water reaches above our knees. Another wetting, but what about it if only we can get ahead. Straight forward, never give up!

On the southern side of the river we come to quite new terrain which again rouses the hunter's instinct in both of us. Here our course goes up and down again, through cloughs and valleys, across huge heaps of snow, wearying and heavy. But the land is fertile; we look across meadows along river-beds, vigorous slopes of willow and heather, moss and grass and whatever else might tempt a reindeer. But in vain we stare our eyes stiff. Nothing living anywhere!

We continue until ten o'clock in the evening, then we meet with the river, which, contrary to all those we have passed so far, runs towards the inland-ice. On its banks five young hares are playing, and we shoot three. Once more a huge fire flares up in the gloaming; we will make blood soup from all the three hares—that will give warmth for the night. Soon after midnight the fog as usual slinks up. It is one o'clock when we lie down to rest after fifteen hours' walk without a stop. We feel in our bodies that to-day we have had the food that we needed; for although the fog, as usual, grows thicker and thicker as darkness comes and the snow once more begins to fall, we do not feel the cold although we are lying on the bare ground.

### FOURTH DAY

Another grey, depressing day, but our spirits are better than ever as we set out at nine o'clock in the morning; for the first time since we left our comrades in Advance Bay we have had a sound, long sleep.

But now our footgear, which we have not been able to dry since we left St. George Fjord, is getting into a very bad condition. The seams are bursting in consequence of the continual wetting, and we have difficulties in keeping the kamiks on our feet. Further, our sinew-thread is nearly used up, and we have only one needle left. With all our hearts we hope for a day of sunshine and for a reindeer, not only for the sake of the tallow and the meat, but also in order to get sinews.



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There must be a good 100 kilometres to Etah, and we are sure to manage this distance in three days.

We are slow in getting up speed to-day ; we are unaccustomed to being satiated and heavy, besides which we have reversed our old order of day and night, as we are walking during the warm day and sleeping in the colder night. We must therefore walk along slowly, and try to go for twenty-four hours, not resting until the forenoon of to-morrow.

The going is better and better, more even than before ; but we pass a stony clough where we must hop and jump from one large block to another until our foot-soles burn. We traverse it and come out on a plain stretching widely and openly ahead, with little rivers and occasional vigorous grass-meadows shining sun-gilt against the dark crimson stone-heaps. Here the fog once more overtakes us. It is four o'clock in the afternoon, and as we can get no view ahead we sit down with our backs towards a cliff wall, hoping that the fog will soon lift.

### *We meet the "Eiderduck."*

I sit and doze, and am awakened by Ajako jumping up ; I hardly believe my own ears when I hear the shout : " Inugssuaq ! Takûk, inugssuaq ! "

A start went through me. A man ! Where ? Who ? From where ? I got to my feet in a hurry.

A short distance away I plainly saw a man coming out of the fog, a reindeer hunter with a little bundle on his back. A skin and some meat—perhaps !

One can imagine what impression this made on us two wanderers, who, like shipwrecked men struggling along on this stony moraine, suddenly see salvation and meet a man for the first time after half a year's absence.

We both shouted. The man stopped, listened, and discovered us when we repeated our shout.

A few minutes later we met and found that it was Miteq, the " Eiderduck," who had come up here from Kûkat, one of the camps near Inglefield Gulf, to hunt reindeer. He was in the

company of Qulutana, Ajako's brother-in-law and Ilaitoq, his sister, and Assarpanguaq, Majaq's son. They had been together until a few hours ago when they agreed to part company and hunt alone, each for himself. Their dogs, three teams, were lying some ten hours' walk from the place of our meeting, approximately midway between Marshall Bay and Renslaer Harbour. These were good tidings indeed!

The "Eiderduck," of course, gave up his hunt immediately in order to help us. But we also wished to get into communication with Ajako's brother-in-law and sister, so we lit a big fire of cassiope and fired signal-shots in different directions. We spent several hours in a vain search, for the fog prevented the Eskimos from seeing the smoke from our fire, and the many clefts prevented them from hearing the shots. The reindeer hunters roam over long stretches, and Panguaq had informed the "Eiderduck" that if his hunting was successful he might stay away for about a week. If we had been able to get hold of these three people there would have been the possibility that we could return to our comrades at once with relief. But this had to be given up; so we continued our walk towards the "Eiderduck's" camp, now at a considerably quicker pace than in the morning.

Meanwhile we had at once pumped the "Eiderduck" for everything worth hearing during the half-year of our absence, and new impressions poured in over us.

The most important piece of news was that a fresh ship had been sent up after the Crockerland Expedition, led by Peary's famous Captain Bartlett. In the beginning of the summer he had pushed his way through ice and all kind of weather. At a point near Cape Parry Captain Bartlett had met with the *Danmark*, which later on had returned without going up to Etah. Everything was well in Thule and round about in the different camps; all our pack-sledges had returned in good condition.

But the War? Did he know anything about that?

Oh yes, he did! The crew of the ship had told him that it

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raged worse than ever. The white men were engaged in exterminating each other. Many big camps were already mere stone-heaps inhabited by hungry widows and fatherless children. A terrible blood-thirst had seized upon the white men. Nobody went hunting or travelling now, they merely slaughtered each other. And the white men now, more than ever before, used all their cunning and great wisdom for the purpose of destroying each other.

Nowhere in their land was shelter and safety to be found; they attacked each other from the surface of the soil, from the sky, from the sea, and from the deeps of the great waters. Usually they shot blindly at a long distance, killing people whom they had never seen and with whom they had no quarrel.

More and more countries joined in; Peary's land (America) also was now at war. Peary himself was now lord of those who fought in the air. On board Captain Bartlett's ship there was a physician who told that he also had been up in the air; it was so cold that now he was very keen to buy fox-skins which he wanted to use on his next air journey.

The land "attacked by many" (Germany) was not yet conquered, although there was hardly any camp in the countries of the white men which did not fight against it.

In one of the warring countries a great man had arisen, a strong man, who had made all his countrymen obey him although he was only a ranker (Kerenski). He was now lord of the country. Before this happened there had been some talk about stopping the War, but now the killing raged more savagely than ever, and it was doubtful whether ships would come to "the land of men" (Greenland) again.

To receive all this recent news was like coming into a typhoon. Yesterday two lonely wanderers fighting their modest fight for their own and their comrades' life through a barren land, and to-day once more in touch with ordered society, perhaps the most ideal in the world at present, and simultaneously in the midst of the horrors of war. It was doubly overwhelming to receive these tidings through this naïve and

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human description, given by a man whom the cultured civilized being looks upon as a primitive savage.

Our own fight to win for science new ground, our suffering and toil, how slight it all seems compared with the sighs of the millions which now resound through the bleeding world.

Will anyone have time to stop and pay attention to the work we have done?

During the march down to the camp of the "Eiderduck"—sometimes jumping between the sharp blocks of the stone-heaps, wading across little rivers, or hastening across soft meadows with their welcome rest for the sore balls of our feet—such were the thoughts that went through my brain.

It was nearly two o'clock in the morning when we reached the moraine where the reindeer hunters had their camp. In a strong feeling of joy and gratitude that our sufferings now seemed at an end, I picked a still beautiful and flowering poppy in memory of the day. It was almost as if I were now at home.

But before we went to rest we broke into the "Eiderduck's" meat store and boiled seal meat with blubber, which we ate with an appetite known only by one who for a long time has fought against starvation and an almost empty stomach.

The first question to be decided after we had found men was whether there would be any possibility of returning for our comrades immediately. As already mentioned, it would be hopeless to wait for the "Eiderduck's" party; for Qulutana, who was a keen hunter, had emphatically declared that his hunting might last for some time if he did not quickly come across game. We immediately took stock of the provisions and found that they consisted merely of a small piece of bearded seal, which would only constitute one meal for seven men. This piece of meat belonged to the "Eiderduck"; he also had a piece of blubber for one feed for his dogs. Qulutana, on the other hand, had no meat at all on this spot. From previous years of hunting he still possessed some old depots in

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the country on which he had reckoned, but where they were situated the "Eiderduck" had not the slightest idea.

The dogs would be of no use to us on the ground towards Cape Agassiz. The country was bare of snow and would be impracticable for a sledge, and on the inland-ice there were yet the many rivers which could not be crossed to advantage. So if we were to bring relief to our comrades we must walk to them, and that without any considerable increase of provisions. Proper hunting during a quick march was, as we had experienced, not to be reckoned on.

According to the map, and considering the terrain we had had to cross, it would be at least 150 kilometres to our old tent-camp. We had arrived here in four days by marches as forced as our strength permitted; it was doubtful whether it would be possible for us once more to cover the distance in the same time, and it was also absolutely essential to us that our foot-gear should be dried. Thus it would take nine or ten days before we could once more be back in our old camp, and it would be highly improbable that Dr. Wulff's party would remain there until then. It would at any rate be against the decisions we had come to in the council of the expedition before we separated. If, in an attempt to bring relief which under all circumstances would not be effective, as it brought merely one fresh man with quite inadequate provisions in the company of two already worn-out men, we now missed them in the wild mountainous tracts, all we should have achieved would be to hinder the really significant help which would come from Etah; and this would be unjustifiable. So I decided without delay to continue the journey to Etah.

## FIFTH DAY

*29th, 30th, 31st August to September 1st.*—Noon, 29th of August. Yesterday over, the strained tension of the expedition appears to be at an end, if our comrades do not meet with too many adversities. I myself feel to-day that our task is concluded, and for the first time for a long period I am in calm water.

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The point now is to persist without sleep so that Etah may be reached and the relief sledges fitted out and despatched immediately. During our preparations to break up I decide to kidnap the dogs of the absent reindeer hunters without further ado. I know they will forgive me as soon as we meet, and the dogs will be returned forthwith from Etah. Unfortunately none of the hunters can read, so we must express ourselves by picture-script. The difficulty is solved by Ajako sketching a map of the coast, giving our final route across the inland-ice to Peabody Bay, where four men are drawn. Then three men and two sledges are drawn by the camp of the reindeer hunters, driving to Etah, and finally beneath it all are the relief sledges hurrying towards the big lake by the inland-ice.

Then we capture the dogs. Most of them are loose and rather fierce, and do not seem enthusiastic at the idea of being stolen by strangers; but we succeed in the course of an hour in binding them all.

So we set out on our last journey, of which I will merely give a short summary now that we are travelling like lords with large, fresh teams.

Our days passed in the following manner :

August 29th : Wake up half-past ten in the morning. Cook food. Capture the dogs. Start across the inland-ice 3 p.m.

August 30th : A sudden storm and thick snow overwhelm us at midnight. Remain for a few hours in the shelter of the sledges and continue when it clears up.

August 30th : At 2 p.m. the Etah district is reached in a storm from the north. The sledges are left by the edge of the glacier, and after a very strenuous walk across mountains, camp is reached at 9 p.m.

In the course of the night and the day of the 31st of August the relief sledges are fitted out, and at last on the 1st of September they leave.

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### THE ARRIVAL AT ETAH

The arrival at Etah will to me always remain unforgettable, especially with the experiences of the last five months as a background.

All the inhabitants of Etah had moved into the house of the Crockerland Expedition, and, as there was no one outside, we came right up to the house without being discovered. But then they saw us through the window and out they poured—men, women and children, like lava under a volcanic eruption, overwhelming us with loud shouts of welcome and a perfect hubbub of delight.

In the very moment when we stepped across the threshold from death to life, from the great silent waste to the happy little camp, we found ourselves suddenly in a crush of people. The noise was deafening. From all points they laughed their welcome, and hearty words sounded cheering in our ears. Questions rained over us, and it was as if big waves beat together above our heads and swallowed us.

The winter-house of the Crockerland Expedition is built so that from the outside, through an ante-room which takes up the whole breadth of the house, one comes into a roomy apartment; this, with an oven in the middle of the floor, represents partly kitchen and dining-room, partly a common room with seats along the walls. From this room doors lead to six smaller rooms on the right and left wall and in the background.

In the small rooms six families were living in peace and unity with a common kitchen in the big room. All these respectable housewives now vied with each other in dishing out food for us on a long table which stood in the middle of the room. It was a luxurious table, with leavings from the rich Crockerland Expedition. Some brought pemmican, some brought biscuits. Dishes were set down with Richard potatoes, tinned tomatoes, beans and bacon, porridge with treacle, brown bread in tins, fried hares, boiled seal meat, gulls in rice soup

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with dried turnips and spinaeh, tea with the food, and coffee after; finally, real American cut-plug tobacco.

The whole thing was like an hallucination, one of those which used to mock us during our periods of starvation. But as reality gradually was brought home to us through the strong odours which entered our nostrils, we felt in the presence of an Eastern revelation from the tale of Aladdin! We struggled for breath in face of this abundance; here was food for an appetite sharpened by half a year of strict economy, and by the strenuous final spurt of the last thirty-four hours! Our only difficulty was to decide from which end of the table it would be best to start.

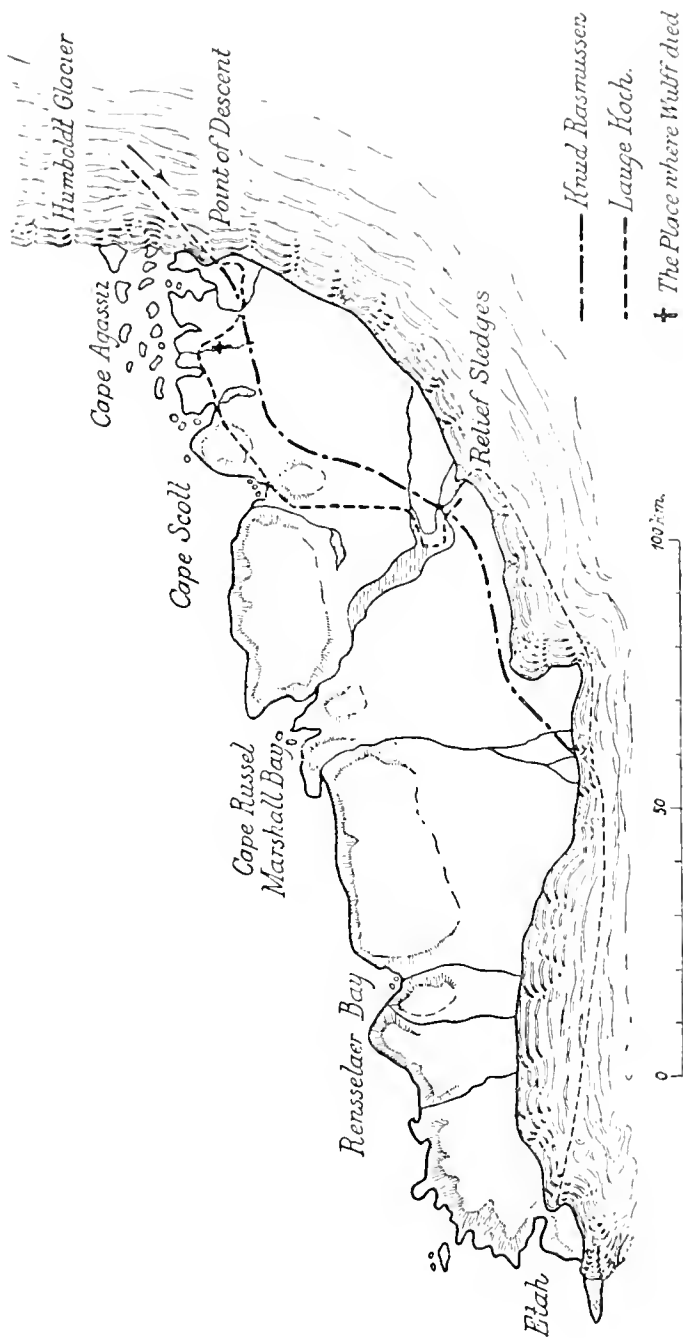
But it was clear to me that in the beginning we had to be very careful about the food, as our stomachs through a long period were accustomed to very sparse and quite unvaried food.

In spite of all protestations from our hosts and hostesses, in spite of a wolfish hunger which was aggravated by the lovely odour of the many delicacies which for so long we had missed, I tried to restrain myself and made honest attempts at eating as little as possible. For how annoying if the joy of our arrival were to be interrupted by a wretched and prosaic colic!

It was a feast according to the best of European standards. Even orchestral music was not lacking; a recently arrived, brand-new gramophone was placed in the midst of the lavish abundance and entertained us with a large and varied repertoire, from Wagner to the latest imported tangoes from Argentine and Paris!

It was obvious that the gates of life had again been opened widely, and even if we were merely by the outmost Northern posts of humanity we had found an echo from the great world of good and evil in which we ourselves were at home! Involuntarily I had to close my eyes and collect myself somewhat; I felt my temples hammering and my heart throbbing, and, as the orchestra after a pause commenced beautifully and softly the minuet of "Don Juan," Etah disappeared from my consciousness. . . .







CAPTAIN GEORGE COMER



THE CROCKERLAND EXPEDITION'S HUT

## SEEKING HELP

I am back at Lynge Viarage and do not hear the gramophone—it is my sister who is playing our old piano with its spinet tones ; a window to the garden is open and a mild breeze taps the panes with the vine ; the fragrance of summer and flowers floats in to us, and I hear the well-known beloved rustling through the leaves of the big lime-trees. Round about me sit all those I love, listening absorbed to the graceful melody of Mozart. . . .

Once more a pause, then the music plays up again : now it is reminiscences of Chopin—a phantasy over a mazurka, a waltz, and the famous polonaise. The scene changes : I am back in my own rooms and my wife sits at the grand ; we are alone with our children ; a deep peace has settled on our minds—a mood of dusk which is only broken when a car rolls along the street or a speedy motor coughs its way ahead.

I must close my eyes again to keep the picture. As a distant buzzing I hear our Eskimo friends telling Ajako of the walrus-hunt of the summer ; through a mist I see the women of the house, who have now, after the execution of their housewifely duties, sat down on the benches to stop the mouths of their fidgety youngest ones with the abundance of their breasts.

A door opens and the yell of sledge-dogs deafens for a moment the music. I had almost forgotten that there are yet two large oceans between my home-sick visions and the present. I am once more in Etah, and now to work for our comrades who are yet in Inglefield Land waiting for help. The sledges must be fitted out and despatched forthwith.

## A DISAPPOINTMENT

As soon as the first hubbub of our arrival has simmered down, before I can do anything else, I must survey our present position and decide wherefrom we could take the necessary things for the outfit of the relief expedition. Only two letters awaited me—one from Peter Freuchen in Thule, and one from Captain Comer of the Crockerland Expedition. There was no date to Freuchen's letter ; it had probably been sent by the

## GREENLAND BY THE POLAR SEA

*Danmark*. Beside general news from Thule, he informed me that he had sent a box of provisions and various delicacies, amongst these a barrel of beer to be drunk at the feast on our arrival. The letter was like Freuchen himself, beautiful and hearty, the first message from a friend to a friend which I received. But unfortunately the dear Americans had forgotten to unload the goods, which, especially in our present position, would have been doubly welcome.

Captain Comer, who had also written a warm greeting of welcome, informed me that it was the well-known Arctic Ocean traveller *Neptune*, which had been here for the Crocker-land Expedition. It had met the *Danmark* approximately by Cape Parry, where it had taken on board the goods of the expedition found on the *Danmark*. The latter was then ordered to return to South Greenland. In addition to this letter the considerate captain had left some newspapers, with the latest news from the War which, of course, were no less welcome than the letter itself.

Time after time during my many journeys up here I have experienced that one always receives the most beautiful impression of the Eskimos when one comes to them as a poor man without possessions. If one has large and rich stores upon which to draw, even the best of one's friends often seem to speculate as to the payment they will receive for services rendered. But if one has nothing, they nevertheless do everything with the same joy and generosity, and they do it all from the bottom of their good hearts.

And once more this experience is mine, though they themselves require their stores, as the summer hunt of walrus failed totally. But they are generous as ever, and vie with each other in putting at my disposal whatever they possess. There is unison in the chorus about me : everything here is yours—our house, our provisions, our dogs ; we ourselves will go wherever you wish to help your comrades. With joy we will go, all of us !

I examine all their provisions and make the arrangements

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for the relief sledges. All the night and the following day are taken up in these preparations, for sledges and dogs have not been used during the whole summer, and there is much to look over and renew. At length, at noon on the 1st of September, everything is ready, and six men and five dogs start. The baggage is brought in two boats, the dogs being driven across land to the head of Foulke Fjord. Already on the following day they will be in the land of the reindeer. Their orders are to go no further than the big lake with the ice-mountains which Ajako and I reached after a march of two days. Here a beacon is to be built where the main provisions and two men are to be left, whilst the remainder, also carrying provisions, are to search the district northward in different directions. As my agreement with Dr. Wulff's party was that they, or at any rate, Harrigan and Bosun, were to go southward to this lake as quickly as their condition permitted, it cannot be many days before the new helpers with their provisions meet with our comrades.

*September 1st.*—Ajako and I are standing on a point of the land following with our eyes the boats speeding away. How good again to see fresh folk set to with a strength which need not be saved! All the impressions we receive are so new to us, everything we see so different to that from which we come. Before us lie the grass-covered slopes of Etah, which, fertilized by millions of sea-kings, look like hanging gardens between the cloughs. Towards the west the open living sea unclosed by the dead quiet of the Polar-ice; the smell of salt water and pungent seaweed which we inhale through our nostrils—how different to the flat fresh water of the east coast!

Ajako bends down, filling his hollow hands with fjord water, which he raises to his face to feel and inhale its salt freshness.

In these drops he smells the meat of walrus, narwhal, and seals—flesh of all the blubbery marine animals which shall now make our days good.

Beautiful ocean! I recognize you, now I am home!

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A seal pops his head up some distance out in the fjord, looking curiously after the boats, which speed away without paying any attention to it. For a long time we can hear the firm strokes of the oars; laughter mingles with shouts from those who drive the dogs along the steep, sloping mountain-sides. Then they disappear behind a headland and everything around us is quiet.

The fjord wind, which has blown freshly from the glacier through the day, calms down with the sinking of the sun; dusk throws its sharp shadows across the mountain, whilst the ocean gleams with a silvery sheen towards the western horizon, between ice-mountains and drifting floes.

A sweet and rare feeling of peace settled on our minds; for the first time for long we can go to rest with a roof over our heads, without needing to trouble about the morrow.

## CHAPTER XIII

### A RACE WITH DEATH

#### DR. WULFF SUCCUMBS TO THE STRAIN OF THE JOURNEY

SEPTEMBER 10TH.—Wulff is dead. This evening the relief sledges returned with Koch, Harrigan, and Bosun.

It was ordained, then, that after all he should not have the strength to continue, but must give up just as he had reached land and was not far from men. This last death takes me absolutely by surprise. Well I know that he was exhausted, but so were we all; that death was approaching when Ajako and I departed I did not suspect.

What a tragic death, just as he had toiled through all dangers and seemed safe at last. I cannot understand it—I cannot understand it!

Yet it is true; the man with whom for a long time I have shared good and evil I shall see no more! Like his sledge comrade Hendrik, he has entered the great peace.

As soon as it was reported to me that people were coming from Foulke Fjord, I immediately made everything ready to send the boats out, whilst we commenced our preparations for the reception we had planned for them. As I was informed that some of the people were quite near, I went out to meet them to hear what news they brought. I was at once surprised to see Koch amongst them, for we had agreed that he and Wulff were to be fetched by the boats; but as I came up with them Koch sat down on a stone, pale and without a word, and the tears which rolled down his cheeks told me everything I needed to know.

## GREENLAND BY THE POLAR SEA

A catastrophe had overtaken the expedition; Wulff was dead, fallen in the last fight for life.

As soon as Koch and I could collect ourselves after this sad meeting, he reported to me all that had happened since the 25th of August. In the following pages I give his written report, which contains all the details:

### KOCH'S REPORT

“ On the 25th of August Wulff and I were for the last time with Knud Rasmussen and Ajako.

“ The departure was to Wulff and me a happy one, because it seemed to us that once more our future lay bright before us. We believed that our comrades had strength enough to reach people and bring help, and our experiences from Ajako's hunting proved that in the vicinity there would be sufficient of hares both for a couple of days' of rest and for a slow journey towards Etah.

“ Of Ajako's five hares we cooked in the course of the day of the 25th two panfuls; some of the more meaty pieces, altogether rather more than one hare, were put away as provisions for our comrades' journey, and our meal thus represented nearly a whole full-grown hare for each man. For the first time for a long period I felt perfectly satiated, but Wulff had, as usual, left his ration still unfinished at eight o'clock in the evening. He gave me a piece, and, as I protested, he declared that it was utterly impossible for him to eat any more.

“ During this meal he gave me a detailed description of his physical condition. For the first time he used the expression 'dying' about himself—an expression which at the time seemed to me extravagant, as, at the same time, he opined that with a few days of rest and reindeer meat he would once more be ready to continue the journey.

“ He spoke about the journey across the inland-ice as an evil dream from which he had now awakened, and he was awaiting the return of Inukitsoq and Bosun with impatient



## A RACE WITH DEATH

longing, as he took it absolutely for granted that they would return with reindeer meat.

“As I mentioned that perhaps for a while yet we would have to content ourselves with hare meat, he waived this possibility aside, declaring that for a long time he had felt absolutely disgusted at the sight of meat. But reindeer tallow would soon put him on his feet again.

“He talked a lot and was very lively, the subject generally being the provisions which in future he would use on his journeys. About midnight he asked me to boil some water, which he wanted to drink hot before he went to sleep, as his fingers felt cold; he then covered himself up for the night and I went to rest.

“But all these new impressions affected me so that I could not sleep, and at two o'clock in the morning I walked up the mountain. I walked slowly and aimlessly, mainly to try what strength I had got left. Up the first steep slopes every step required a great output of energy, and I had to admit to myself that I was very weak. From the mountain I saw a hare and I climbed down again to our camp to fetch a gun, but the hare was very shy, and I quickly gave up the hunt and returned to the camp tired and hungry. The hunters were still absent, and as Wulff was awake we decided to cook the dog-flesh which was left over from the previous day on the glacier.

“Wulff merely took a small bone, but he drank two big mugs of the hot soup.

At nine o'clock in the morning of the 26th I went to sleep and only awoke when Inukitsoq stood by my side. The result of the two days' hunting had been merely one hare, which was eaten long ago. The hunt had failed entirely because of the heavy fog which had lain on the terrain which they traversed. Bosun had not much strength left and Inukitsoq also felt weary.

“Inukitsoq and I now discussed various plans, but in reality there were only two to choose between. We must either break up *at once* and go slowly in the direction of Marshall Bay—where we might expect to meet people soon after our comrades had reached Etah—making short daily marches, eating on the

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way according to the results of the hunting ; or Inukitsoq and Bosun must try yet another reindeer hunt. This last plan, however, appeared to me too risky ; two more days without hunting would mean great exhaustion, especially for the hunters, who, as we did not accompany them, would have to carry the meat back to us as quickly as possible. No, there was only one thing to do : we must go with them, set off immediately, whilst we have still some strength and together try our hunting fortune.

“ I communicated the result of my discussion with Inukitsoq to Wulff, but otherwise I did not speak much to him, as we were busily engaged in making the preparations for our journey. We left *everything*. Each man brought merely a pair of travelling kamiks and a rug. Further, we brought a rifle with about thirty rifle cartridges and a double-barrelled gun with about seventy small-shot cartridges. Wulff left his scientific diaries and collections ; I brought my cartographical and geological notes and sketches.

“ We set off at four o’clock in the afternoon, but already twenty minutes later Wulff wanted to give up and return to the old camp. We did everything possible to induce him to continue ; to remain here alone would be certain death for him if we did not quickly find better hunting. So we succeeded in making him come along. Half an hour later Inukitsoq shot the first hare, which we decided to eat raw, as we were all very hungry. I asked Inukitsoq, now and in future, to undertake the distribution of our rations, and he divided the hare so that Wulff was allotted all the meat whilst the rest of us shared the entrails—a decision against which Wulff, however, protested emphatically. Inukitsoq always gave Wulff more meat than the others, as in his opinion he was the one who needed most. Only when, time after time, we observed that Wulff did not finish his ration, the portions became more equal. The raw, fresh meat was eaten with great gusto, and Wulff expressed the opinion that perhaps this was healthier for him than the boiled meat, of which he was tired.

“ In spite of our bit of luck on this hunt, his spirits were

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very low. He seemed on the point of losing courage altogether. The sudden change from the rest on the skins—with prospects of reindeer meat and tallow—to a fresh fight for life had affected him strongly mentally. We had left the depot in bright sunshine; now the cold of night approached and the fog again lay over the land. The ground across which we walked was very rugged and the depressing fog, in combination with the constant scrambling up and down the clefts, preyed on Wulff's mind so much that I began to fear he was on the point of *losing the will to live*.

“About midnight we made camp. Inukitsoq had then got another two young hares, which we cooked immediately. Despite all appeals, Wulff merely ate half his ration, giving the other half to Bosun. ‘If I eat another mouthful I shall bring it all up,’ he declared. But the soup he drank with great relish. Inukitsoq then went out hunting again, and after an absence of two hours he returned at midnight with yet another hare. More cooking; but Wulff saved all his meat for the following day, when he gave half of it away.

“The day had been good for us beyond expectation; we had merely walked for a few kilometres, had had a young hare each, and plenty of sleep; nevertheless Wulff complained continually. I now began to believe that his expression ‘dying’ had not been exaggerated at all. But how could we succeed in rousing his wish to live when he could not eat? Only a reindeer could now save him; but how could we get him so far ahead when he himself had lost courage?

“The next day, the 27th of August, we continued after a rest which, for Wulff and me, had lasted thirteen hours. We had all slept well, even Wulff, but despite this and to our anxiety, he seemed to be weaker than on the previous day. Although we walked very slowly we had to wait for him continually all through the day. He complained constantly about his heart and increasing anæmia. Time after time he enquired about health resorts in Denmark, spoke about oatmeal gruel, eggs, malt extract, and other fattening dishes.

“It had taken us *three hours* to walk *4 kilometres*, and

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Inukitsoq had shot the first young hare. Shortly after he and Bosun shot each a hare, and at Wulff's suggestion we immediately began to cook them. Whilst we others collected fuel and cooked the meal Wulff slept incessantly. This lasted two hours.

"When the hares were cooked he, as usual, ate hardly anything; but he drank some soup, which warmed and stimulated him. After this meal we slept for another couple of hours, and, satiated and heavy, we continued at seven o'clock in the evening. After an hour's walk Inukitsoq shot another hare, and encouraged by this good fortune, we made camp as early as nine o'clock. Bosun went out hunting at once, returning by midnight with a hare. For the second time that day we boiled meat, but Wulff had as yet some left from the last meal. Again he gave it away, for, as he himself expressed it, meat sickened him. But how could he regain his strength when he persistently refused to eat his rations in spite of all our entreaties? He only became thinner every day.

"Another good day of travelling—short distances, much rest, much meat. Although Wulff complained about his heart the whole time, and about his stomach and his terrible weakness, he made constant botanical observations which indicated that his memory and his sense of observation were as yet surprisingly fresh, in sharp contrast to his exhausted body. When his fingers were too stiff for him to write, he dictated to me that which he wished to put down. On the whole it enlivened him considerably to speak about the plants he found on the way. His botanical interests were as alive as ever and his keenness to add to his results unchanged. Now and then the hope seemed to awake that, in spite of all, he would be able to manage, and this always stimulated him greatly. And why not hope for the best? In two days we had shot and eaten nine hares, we four men! We saved nothing, partly because we were yet too exhausted to carry anything, partly because there was no indication that game would decrease further ahead. On the contrary, we were going towards the real reindeer district!

"But the next day was to be quite different from the two

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previous days. All night we had sleet, and during the day constant showers. This prevented us from seeing the hares. Furthermore, we came into quite a different type of country, with deep, stony cloughs, poor in vegetation. After four hours of strenuous marching we decided to leave the border-zone of the inland-ice and go towards the sea—towards the land with a more even terrain, more fertile ground, and richer in game.

“As usual we started by noonday. In the afternoon Bosun shot a young hare which we ate raw; otherwise we saw no game that day.

“On the top of every mountain slope we passed we had to wait for Wulff, often for a long time, although it was to the interest of us all to get quickly ahead to better hunting-grounds. Thus it was that in twelve hours we had covered a distance of hardly 8 kilometres. Wulff had several times during the day been quite unbalanced, very irritable, and occasionally not quite clear. During the day he had often declared that it was better to die—‘this walk was worse than death.’

“Again we had snow-showers during the night. Several times I awoke and noticed that Wulff’s sleep was very restless, and that he was constantly chewing tobacco—a practice which, in spite of our warnings, he indulged in excessively of late.

“After twelve hours of rest we went on again. None of us spoke much, but I noticed at once that peace had settled on Wulff’s thoughts. I was therefore highly surprised when, after three hours, he suddenly stopped and said :

“‘Now I can go no further because of my heart. Will you find a place for me where I can lie down?—preferably near to a lake where I can get something to drink, and where you will be able to find me if you get game in the immediate future.’

“I had the definite impression that this was the result of a man’s ripe and well-considered reflection. It would be of no avail to attempt to dissuade him. We had just sat down by a lake near a large clough which would be easy to recognize, but to gain time and yet another chance to save his life, I pointed to a lake some 2 kilometres further ahead. He agreed to my choice and we went together towards it; once more to

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encourage him I mentioned how comparatively near we were to people, and how slight were the difficulties yet before us compared with those we had already overcome.

“ ‘Yes,’ said Wulff, ‘to think of giving up after having gone through so much and surmounted so many difficulties as we already have! No, rather make yet another attempt! But,’ he added, ‘for all that, this is walking to one’s own funeral.’

“ I at once told the Eskimos that Wulff had altered his decision, so we set our course away from the lake again.

“ The snow had ceased to fall, there was some wind from the north, and still some fog lay across the land. The Eskimos parted company to hunt each in his direction; two hours later Bosun returned with fresh excrements of reindeer, which he ate. We were standing by the edge of a big clough, and down into this Bosun and Inukitsoq went, seeking reindeer. As Wulff had again remained some way behind, I went up on a mountain erag to look out for game. He had sat down, but as soon as he sighted me he called up to me: ‘All right, you go down into the clough; I am coming soon.’

“ This we did. At the bottom of the clough the hunters had lost the tracks of the reindeer, so we all sat down, chewing willow-roots whilst we waited.

“ As Wulff came down to us the first thing he said was: ‘Well, dear comrades, here I will rest; I think there will be shelter by the great stone on the other side of the river.’

“ He spoke quite calmly, and no emotion was noticeable. As I made another attempt to coax him to continue, he replied definitely and shortly: ‘No, I cannot continue; there is an end to it now! Just do me the service to write a few letters for me, and let the Eskimos boil some water so that I can get a little warmth in my body whilst I dictate the letters.’ Then he rose and walked up to the big stone which he had selected; and here he had laid down when I reached the spot.

“ In vain I considered what I could do to help Wulff, and in vain did I discuss the situation with the Eskimos, who were gripped uncannily by his last decision. But we were absolutely

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powerless when he himself gave up and refused to go on. To remain in the big clough void of game would be certain death for us all.

“My own position was not much different from Wulff’s. I also was weak and my life depended entirely upon the hunt of the Eskimos; I myself had no strength to hunt. If both Wulff and I remained in the clough there would be two instead of one to relieve, in case the luck of the hunt should turn; and if this did not soon happen the Eskimos’ strength also would probably run out, and help would fail. In that case it would mean not merely catastrophe for us all, but the dearly-bought results of our expedition would be lost, as nobody would be able to find us in this clough. There was nothing for it; we who had as yet not given in must continue without Wulff; that was the only chance for the four of us. Further, Wulff was quite clear as to the position and its hopeless seriousness. Inukitsoq and Bosun had hunted incessantly since we had arrived on land; they had shirked no exertion—often they had gone out again when we were camping, and faithfully had they brought to us whatever booty they caught. And so far this had been comparatively plenty. But what was the good of it all when Wulff would no longer eat the only thing we could procure—boiled hare? And now he himself had preferred to remain lying here.

“As soon as the water was boiled and he had drunk himself warm, he dictated a letter to Knud Rasmussen—a detailed letter which set out his Last Will. After that he himself wrote a letter to his parents and his daughter. Occasionally I noticed some emotion, but he was absolutely calm.

“When he had finished the letter he lit his pipe and dictated to me a botanical survey of the vegetation in Inglefield Land. This was the last thing he did. We then lay speaking for awhile, and whilst we were discussing a probable rescue he said: ‘I suppose if I remain perfectly quiet I can live for another couple of days, and if during the next few days you can shoot a reindeer I shall, of course, be glad of relief. But it is no earthly good coming back with hare-bones. If several days

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should elapse and you then meet with people, it is probable that only oatmeal gruel and port wine can save me.'

"He then enquired how long I myself thought I could last. I replied that without hunting I supposed I had the strength to walk for yet another day, whilst the Eskimos probably could keep up for a couple of days.

"By now we had remained with Wulff for a good couple of hours, and as the Eskimos were impatient to continue the interrupted hunting I made ready to break up. Although the situation in itself was a sad one, I did not at the moment feel very touched at the departure: I myself was too weak, and I had a feeling of walking to meet my own death.

"Wulff remained quiet as we went; his last words to us were: 'Well, I will finally wish for you personally that you may reach your goal. When you meet difficulties, remember that now it is you that must save our results. May good fortune follow you. And now farewell!'

"Again the fog had rolled up, and it all appeared to me so enormously depressing, as we had great difficulty in finding our way. Three hours later the weather cleared up somewhat, and we obtained a view towards the coast. The land inshore was almost bare of snow, and we set our course towards it. About midnight we went to rest, wet and cold after wading across a river. In my diary I wrote that on the following day I should probably be able to reach Cape Scott without food, but that would be the finish of me; but here at least my diary would have a chance of being found.

"It was then too cold to sleep, and not until the morning of the next day were we able to get a couple of hours. By then there was clear sunshine and for the first time we had a view across the land. We found that we were by the middle one of the three little fjords which run inland between Cape Scott and Cape Agassiz. Cape Scott, where my followers during the spring had shot three hares and noticed tracks of reindeer, was also plainly visible. So we decided at once to set our course right for Cape Scott. I was now very weak; all the various sensations of hunger I had experienced on the inland-ice

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returned in an aggravated form. In addition to great weariness I felt considerable dizziness, and a frequent blackness before the eyes.

“About three o'clock we gathered a panful of fungi and boiled them; that gave us new strength to continue.

“Evening came and we had still seen no game. Suddenly we spied a brood of long-tailed ducklings swimming on a lake. The Eskimos shot six, which we cooked, and after that we continued, reaching Cape Scott just before midnight.

“Here Inukitsoq and Bosun shot six hares, and for the first time we had an opportunity to consider whether we could rescue Wulff. The position was this: We could start from Cape Scott two days after we had left him and would then be able to reach him at the earliest twenty-four hours later. Wulff would then have been without food for four days, and we could offer him only hare meat, which he had definitely said would be useless. Furthermore, in order to rescue him we would have to have enough of food for the journey there and back. If before the start we ourselves were to have a meal which would be of any help in our exhausted condition, we should only have three hares left for the rescue, and as this was hopeless we had to give up the idea. Only a reindeer to-day or at the latest to-morrow would be able to save him. But, unfortunately, this stroke of luck only arrived when every hope of finding Wulff alive had vanished.

“During the following three days we got so many hares that we had sufficient daily provision, but we never had such a surplus as to make rescue possible.

“On the evening of the 2nd of September Inukitsoq and Bosun shot two reindeer, but at the same time a thick fog settled on the land. We then definitely abandoned any thought of returning to Wulff, for not until ten days after his last meal could we be with him again, and it was not probable that in his exhausted condition he would have been able to resist the night frost and hunger for so long.

“There was now no other alternative but to go down to Etah, and as quickly as possible report to the leader of the

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expedition Wulff's death, and inform him of the collections which still remained by the point of descent. But as we were still very weary and I myself very weak, we rested for two days by the shot reindeer.

“Early in the morning of the 4th of September we heard shots in our immediate vicinity—they came from one of the Eskimos Knud Rasmussen had sent to our relief; he had shot a reindeer close to us. We got into immediate communication with him. The day after we met another man, and on the 6th we set out and reached at length the sledges and the depot of provisions sent from Etah, which proved to be not far from our reindeer camp. We reached it on the 7th of September, and in the evening of the 10th we were in Etah, where immediately I reported in detail to the leader of the expedition.”

## CHAPTER XIV

### A RUNIC MEMORIAL

THE life of Thorild Wulff was so motley and adventurous that he himself was not always quite clear as to the sequence of the incidents in which he had such an astonishing knack of finding himself playing a part wherever he happened to be in the world. Often during our journey I asked him to give me a complete survey of his life's work and experience, but he always shook his head and said smilingly that he was only able to relate by sections the story of the forty years of his life if he had to live them over again in memory. A connected survey he would only be able to give me when he got home and had time to look up his diaries and notes.

No man possessed to the same degree that great restlessness which created action; but, unfortunately for himself and for us, he lacked the ability of finding that peace of mind which expresses itself in steady work with books and reports. Few men possessed such all-embracing knowledge and such excellent training in readiness for the use of a supreme brain; never have I met a man who so literally and personally had taken possession of the earth, and therefore we his friends, who knew the amount of matter which perished with him, mourn the fact that he has left no great production behind him. But he himself probably found that he did not need it, and a glance at the different data of his life fully substantiates the view that he had no need to erect a verbal memorial for himself.

Thorild Wulff was born in Gothenburg on the 1st of April, 1877, matriculated in 1894, and studied botany in Lund. In 1899 he made his first great journey as a member of a Swedo-Russian Expedition for the measurement of degrees, during

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which he collected material for the treatise which in 1909 procured for him his Doctor's degree : " Botanische Beobachtungen aus Spitzbergen." After this Thorild Wulff's life became so full of events that I dare not entirely trust to my memory of his own statements. Dr. Birger Selim, of Stockholm, has kindly put his excellent necrology from " Ymer " at my disposal, and from this the following matter is extracted :

For a number of years Wulff spent his life travelling in the East and in the tropics. Before he left Europe, however, he had, travelling in Germany, France, and England, keenly studied every branch of life and knowledge.

In 1902-3 we find him on a botanical exploration in India. On this journey he devoted himself not merely to botany, he also got a thorough knowledge of Indian architecture, and a small brochure he wrote on this subject has often been alluded to as a striking proof of the quick receptiveness of his brain.

Later on he settled down in Stockholm, and from 1906 to 1909 he was attached to the Central Institution for Experimental Agriculture. During this period, which represents an *intermezzo* in Wulff's roaming life, he had a good opportunity to study scientific problems, and, as the editor of the periodical *Trädgården*, he showed considerable ability in making his scientific knowledge generally accessible through well-written and instructive popular articles.

In 1909 he left the Institute of Experimental Agriculture to become lecturer in botany at Stockholm's Högskola.

In 1911 he journeyed to Iceland. This was the second time Wulff had visited the island of the Sagas, and between his two visits he had repeatedly travelled in Lapland. On these shorter journeys he rested and made his plans for the longer ones. Whilst he loved to appear suddenly like a comet in the big towns, for awhile " blowing a storm over the duck-pond," this man of fête and work constantly required air under his wings ; he was ever ready for migration as soon as the autumnal mood fell on his mind.

In July, 1912, he was set a task which entirely engrossed him. A very large capital was put privately at his disposal to

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enable him to travel to China, in order to procure collections for the Röhsska Kunstsöjdmuseum in Gothenburg. But previous to this he set out on a journey of study throughout Europe, in order to make himself conversant with the collections of Chinese art in the important museums. In the autumn he travelled to Siberia, visited the battle-grounds of Mukden, and in September settled down in Peking, wherefrom he made excursions into Mongolia and China.

On the same journey he received from the Ethnographical Section of the Riksmuseum in Stockholm a considerable sum of money, with the proposal that he should also collect for this museum anything of interest. In the yearly report of the Ethnographical Museum for 1916 Wulff's collection is estimated to number 956 articles. This collection gives a complete picture of life in China, not merely before the revolution, but also from the oldest time.

Wulff's sojourn in China was rich in adventures; he himself most frequently mentioned a relief expedition in which he took part in June, 1913, to save a friend, the Scottish telegraphist Mr. Grant, who had been kidnapped and carried away by Mongolian robbers. The expedition reached the camp of the robbers, but simultaneously as they were informed that their friend had been murdered long ago, they themselves were captured and were to be executed. After two days of waiting the chief of the tribe was accidentally informed that a son of Director Henningsen from Store Nordiske was amongst the condemned. As soon as the chief heard this, the sentence of death was annulled, as he had once received great hospitality at one of the stations of Det Store Nordiske Telegrafsekskab. The white men were then led away under guard, whilst as a compensation the Chinese followers were beheaded.

In 1914 Wulff went from China to Japan, where he did not content himself merely with gaining a thorough knowledge of the life and customs of the modern Japanese, but also went to the island Yesso to study the Aino people, now becoming extinct. He succeeded here in collecting rich material, in the form of museum objects, pictures, and written notes; unfor-

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tunately the latter were never developed into a book. Wulff is surely the last explorer to see and study the Aino people at a time when results were yet to be obtained; he himself used to emphasize that the collector who followed him would have to leave without achieving anything.

Subsequently he journeyed via Sumatra to Java, where he was also making collections, especially on the two little islands Bali and Lombok, where he found himself at the outbreak of the World War, and from which he commenced his return journey in the beginning of October on board the Swedish steamer *Nipon*.

In the spring of 1916 he put his name down as a member of the second Thule Expedition to North Greenland, and on this expedition he made the greatest sacrifice to science which a man can make.

The letter Wulff sent me through Koch was a detailed Last Will—concerning partly his botanical results, partly his house and property in Stockholm.

It begins thus :

“ The constant hunger and toil of the summer and the almost absolute lack of food of the last two days have caused such a decrease in my physical strength that even by summoning all my will-power I am unable to follow Koch and the Eskimos further. As their salvation depends upon the possibility of reaching better hunting-ground as speedily as possible, it will merely be a weight on the party if I drag on further. With perfect peace of mind I therefore say Good-bye, thanking you all for good comradeship on the expedition, and hoping that you will be able to save yourselves and our results.”

Deeply moved, I read these resigned words of farewell, which in their simplicity had over them the great final solemnity. Truly they expressed a man's open and calm glance at death. To the last he had been engaged in getting the most possible out of his work. A holy fire had kept fresh and

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receptive to impressions the tottering and exhausted wanderer's sense of observation. With fingers stiff with cold he had noted down up to the very last day everything of botanical interest, and when he himself could write no more he dictated before Koch's departure a short résumé of the vegetation in the district which witnessed his last hopeless fight for life.

It is written as an addition to his diary notes and is as follows :

“ All the plant localities here mentioned lie on N. Lat.  $79^{\circ}$  between Cape Agassiz and 15 to 20 kilometres to the west of it. Vegetation has been unusually rich and vigorous, quite a different and luxurious type to the one of the north coast of Greenland. Several of the varieties have surely their northern border here. I have not seen sign of them farther north. A careful examination of the vegetation between Cape Agassiz and Etah from July to the first part of August is sure to give very good botanical results. In my exhausted condition I can do nothing further.”

There is no call for commentary. In the manner in which Wulff departed from life he himself wrote his simple and brief epitaph, which, together with his excellent botanical work, will preserve his name as long as an interest in the solution of scientific problems exists. In deep sorrow we will lower the flag for this Swedish explorer who found his death on the white field of honour, working until he fell.

### HARRIGAN'S REPORT

The following report which Harrigan gave after his arrival at Etah, and which I wrote down immediately from his dictation, is given as a supplement to Koch's report :

“ On the day when Wulff gave up and sought a place where he could lie down to die, we were all exhausted and weary. We were very thin and suffered from anæmia. This was plainly visible from our veins, which almost disappeared, and made itself felt by sensations of giddiness ; further, we had difficulty in keeping warm, especially our hands and feet.

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“If we had been on the inland-ice or open ice, where we should have had a sledge, we would have tried to pull Wulff along, as we did occasionally during the last days on the inland-ice. But on this snow-bare land of eloughs it would be a matter either of carrying him—and none of us had the strength for this—or remaining with him; but as we should have to go a long distance before there was any game, this also proved impossible; it would be to seek death for ourselves without being able to help our dying comrade.

“And Wulff would eat nothing, at any rate no hare meat; of our last bag he tasted merely a mouthful of hare liver, although he might have eaten meat to repletion. We could do nothing for him.

“I believe he was ill, for during the last few nights he moaned often during his sleep.

“We had no alternative but to leave him behind, as he himself demanded. If we found reindeer in a place from which we could return whilst he was yet alive, we might still be able to save him. But this was the only possibility.

“We plucked grass and heather and made as soft and sheltered a bed for him as we could, and here he lay down when it was ready.

“As we arose to continue our journey he nodded a smiling farewell. And this smile from the poor man who had lain down to die was my last impression of Wulff. I believe that he would very quickly sleep into death.”

Inukitsoq, or Harrigan as we called him, had surely been the one who, by his hunting, up to the very last did the most to keep Wulff alive. It is of interest to see the characteristics of this man which Wulff himself gives on a leaf of his diary, which has no connection with the general notes from day to day :

“Harrigan, a quiet, silent man, conscious of his own strength, endurance, and ability to carry on in all weathers, but without boasting. A lithe, beautiful, muscular body which works with all the light elegant harmony of the sportsman and the savage. A decidedly humorous mind which helps him



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through all difficult and annoying situations. A good father for his team of dogs, and a perfect artist with regard to driving and the finding of a way through the worst of pressure-ice, a pathfinder in the wilderness with the spontaneous compass-like sense of locality of the savage, and an exceedingly fine seal-hunter on the ice with his stalking-sail. In a word : a fine and well-trained example of his tribe, and this means a good deal among the Polar Eskimos, who are all, without exception, hardened, quick-witted hunters without a flaw."

When a catastrophe like Dr. Wulff's death occurs, it is natural that the responsible man puts to himself the question whether he could have planned otherwise. But even now, so long after, I cannot see but that what we did was the only right thing. Koch has in his reports explained his dispositions during the walk towards the relief sledges, a report which grips one by its sober brevity. It is therefore only natural that I should add a few words to that which has already been said about Ajako's and my journey for relief. I have told in what condition we reached land, and how necessary it was that we should get in touch with people as soon as possible. I chose for myself and Ajako the most risky and difficult task—with the shortest possible rest to walk the longest distance. And whilst the others merely advanced as slowly as their condition required, constantly seeking the districts which provided the best hunting, it was our task to force our way ahead irrespective of the question of the game.

I had pointed out to Wulff and Koch that a slow journey with short marches would furnish them with the necessary game. This came true with the exception of that one day when Wulff gave up.

A single comparison will serve as an illustration of the different travelling conditions offered to the two parties : Ajako and I walked from Cape Agassiz to the great ice-mountain lake, where the relief sledges were to be met, in a little more than two nights and days, and on all this stretch we had only one hare. The others took about twelve days to reach the

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same point, and killed twenty-four hares, six ducklings, and two reindeer.

On the whole of the expedition Dr. Wulff had shown himself to be a quick and enduring walker. On the inland-ice he managed excellently in spite of the very short rations of pemmican and meat. Not until we had to live entirely on dog-flesh did he collapse. Notwithstanding this, I am convinced that he would have managed after all had not the exhaustion and weakness consequent on the passage across the many glacier rivers used up his last energy. When anæmia and pains in the heart set in he collapsed. Not until then did he lie down to meet the death which he had no longer the strength to evade.

It is my conviction that Wulff's death was easy, for he was in that state of physical exhaustion when the change from life to death is not very great, and in which death comes as a sleep which one feels that one needs more than anything else and which almost unnoticeably carries one out of life. He had his hardest days together with us during the period which he describes in his diary, and which will here be reproduced.

Our physical energy was so low after the last few months of under-nourishment, that we were not far from that state in which, after all, everything appears quite indifferent to one. The will also claims some material nourishment, even though for a period one may force one's constitution to perform miracles, simply because one will and must. As long as one is capable of this, one is quite indifferent to what he eats so long as he feels that he is capable of getting up again after the short rests.

One must shut one's brain to arguments of any kind and try to force one's thoughts to refrain from playing with intolerable food phantasies; one must look ahead in such a way that one does not even accept the hopelessness of the moment. Wulff not only gave in to his food phantasies, he even discussed in his diary his state of exhaustion, and regarded the last walks towards people as worse than death. Thought of this kind can merely lead to the breaking of the will and a weak surrender.

One then genuinely feels that there is only one desirable

## A RUNIC MEMORIAL

thing, and that is to be permitted to give up the fight and die in peace. Every time one gets up to go on, all the agonies are intensified, and one feels that relief could only come if one were allowed to lie down and without a thought for the surroundings seek peace in a long, long sleep. Life amongst other people appears so distant, so unobtainable, that for the moment it seems a matter of indifference; death has lost its sting, and one accepts it as a welcome necessity. Hunger is felt no longer; it belongs to the time when one was well and had strength to resist it; one merely feels a weakness so overwhelming that peace cannot come until at length one lies down for the last long sleep.

Dr. Wulff was in this state when, after an incomplete rest, he had to take up anew the fight for life with all the physical suffering which paralyzed his will, and through his last diary notes we obtain a gripping picture of the fight which he fought until at last death proved the stronger.

### EXTRACTS FROM DR. WULFF'S LAST DIARY

“*August 24th.*—We start from Camp 18 at 9.15 a.m. Land five kilometres distant near the goal. Big Cryokonite holes. Descent rather steep. The last dog is being killed. Several glacier torrents are crossed. Dead tired, half unconscious. Reach the gneiss cliffs 7.30 p.m. after exactly *three* weeks' march, four hundred kilometres across the inland-ice. Tracks of hare and reindeer.

### “CAMP 19.—THE EDGE OF THE INLAND-ICE. 8 P.M.

“Calm. Fog. Drizzle. We lie down to sleep on mountain shelves. Cold, tent cannot be pitched. The three Eskimos immediately go hunting, indefatigable. All through the night veritable cannon-shot from the edge of the ice which runs down into a small lake. *L. leucopterus*. Veget. on the mountain terrace autumnal. 5° during the night, hoar-frost. *Salix arctica* quite light yellow, and in fruct. *Luz. confusa*,

## GREENLAND BY THE POLAR SEA

*Sax. oppositifol.*, *Cerina nivalis*, *tricuspidata*, the latter vigorous, still in bloom, blood-red, *Papaver*, *Draba*.

“ *August 25th.*—Ajako returns 6 a.m. with five hares. Boiled hare and delicious liver, heart, meat and strong soup, but I am incredibly sick of the meat diet and all the boiled meat ever since a year ago. Thinking merely of peas, salt pork, pancake, jam, bread, fruit, brandy, coffee, chocolate. Nevertheless I eat as much as I can to regain the wish to live and conquer my weakness. New ice formed last night on the lake. Feel continually reduced in strength. Cassiope, *Stell. longipes*. *Aspid. fragrans*.

“ Harrigan got another two hares, all three young with grey heads—one was eaten raw, two were boiled. *Potentilla nivea*, *rubricaulis*, *emarginata*, *Dryas*, broad-leaved, smooth, octopetala-like, typical *integrifolia* and var. *canescens*. Very commonly *Myrtillus uliginosa*, scattered extensive mats, *Salix arctica*, with broadly oval and narrow lance-shaped leaves, highly variable, *Pedicularis hirsuta*.

“ Knud and Ajako started out on foot this evening at 6 o'clock for Etah (approx. 200 km.), the straight road across land to send us relief sledges and provisions.

“ *Myrtillus uliginosa*, *Pyrola uniflora*, *Wahlbergella* (large, not triflor.).

“ Drink warm water for supper.

“ *August 26th.*—Koch during the night went for a few hours' walk inland. Stalked a hare in vain. I am sleepless, tortured by a persistent carbuncle on the ham. Clear cold night. Eat in the morning the last remnants of the last dog. Harrigan and Bosun return 2 p.m. after nearly two days' unsuccessful hunt. Got a hare which they ate raw. No reindeer. We must break up at once and go towards Marshall Bay.

“ Thrown away theodolite, two cameras, bandages, clothes, everything which we can yet do without. Remains now the most serious flight for life. To think of collecting plants now is impossible. If we can manage to get off with our lives it is great. We four men have absolutely nothing edible and obviously bad prospects of hunting. All weak but in good spirits.

## A RUNIC MEMORIAL

This helplessness, when strength leaves one, is hideous. I am only a skeleton now and shiver with cold. 5.30 p.m. we make clear to continue westward. *Everything* is left behind. I have only my reindeer-skin coat and a pair of extra kamiks. Plants and films and notebooks remain by the edge of the inland-ice, under a stone above the terrace where we slept the last two days. We do not even carry tent or Primus, merely guns, as we are dead-tired. This will be a march towards death if a miracle does not happen. Gun and cartridges are brought.

“Harrigan shot a small hare 7 cm. long. *Lesquerella*, *Hesperis*, *Cerast. alp.*, *Kobresia*, *C. nard.*, *Erioph. polyst.*

“*Poa cenisia*. *Trisetum*, *Hierochloa*, *Luzula nivalis*, *Sax. opposit.* Flower. *Alsine verna*, *Silene acaulis*.

“Knud went 25/8 in the evening, can surely reach Etah in 6 or 7 days, and then the relief sledges could reach us by the edge of the inland-ice about the 4th of Sept. and we be in Etah 7/8 Sept., saved from this struggle with death of starvation which has lasted since the middle of May. Hideous memories which for ever put a gloomy colour on life. When deadly indifference to life appears and weakness gets the upper hand even food phantasies disappear, and the thoughts occupy themselves with those at home and with the strange sum total of life.

“Rather good sleep in spite of boil. Start noon. Grey cold fog. Along the edge of the inland-ice. Got before 3 p.m. 3 hares, cooked. Continue towards west 7 p.m. Block-terrain, sluggardly landscape. Think mostly of a visit to some health resort for my poor worn-out gaunt body and suffering soul.

“Drag along for 2 hours in cold fog, heavy, stony, cliff-terrain until 9 p.m. Got in the evening another grey-headed young hare. Minus 14°. Camp for the night on the moss between stone-blacks near a small border-lake by the inland-ice which we follow. Were I only at a Sanatorium. This is worse than death.

“Day's march approx. 6 km., to-day 5 km.

“August 27th.—As we brought nothing but 2 guns, 3 rugs.

## GREENLAND BY THE POLAR SEA

my coat, 5 boxes of matches and a pan, our rig-out for 2-3 weeks' autumn campaign is very simple and 'Eskimo.' To sleep 11 p.m. on the mossy slope. Fog sets in, minus  $0^{\circ}5'$  and a little snow. The Eskimos—those energetic savages—again after hare—return.

“ 4 p.m.—Entrails eaten as usual raw, the blood goes into the soup, then a fresh cooking of hare. Glorious, four hares in one day for four men—that means life for us. The soup is drunk by turns from the pan as we have left our cups. My strength which was almost exhausted returns and I hope to conquer the dizzy feeling of head and heart, but last four days I have been nearer death than life. Can again permit myself a small plug of tobacco, which previously was poison for my empty stomach. Hope the diarrhoea after the dog-diet will stop. The hare tastes beautifully, like chicken. We make fire of Cassiope or better still with old dry branches of *Salix arctica*, finger-thick. Veget. finished for the year, everything yellow and brown, ready for winter's rest. Fruit of Cassiope, *Sax. opposit.*, *tricusp.*, *Dryas*, *Potentilla*, *Drabæ*, *Wahlbergella*, etc.—*Wahlberg. affinis* and *triflorum*.

“ A loon, geese, terns, buntings in flocks. Midnight gloom, gneiss knolls, tracks of reindeer.

“ *August 28th.*—Bosun a hare during night. Cold. Fog. Falling snow. Diarrhoea. Misery. Start 1 p.m. through snow. *Colpodium*, *Cystopteris* (com.), *Lycopod.* *Selago*, *Rhododendrou*, red-polls in flocks, terns, falcons, plenty of animal life and rich plankton in several little lakes. *Sax. cernua*, foot high with top leaf. *Myrtillus ulig.* blood-red, very common, always without fruit. *J. biglumis*, *Epilob. latifol. ster.*, *Hesperis* com. in fruit, *Oxyria*, *Draba nivalis*, *hirta*, *Cardam. bellidifol.* Bosun a young hare 4.30 a.m. Driving snow, fog. Shared the entrails at once and ate them raw, warmth in body. Yes, the whole hare was divided in 4 pieces which were eaten raw. Strenuous march until 12.30 a.m. without finding game.

“ *August 29th.*—I am half-dead, but found *Woodsia ilv.*

## A RUNIC MEMORIAL

“ Lay down at 7 p.m. for I will not hamper the movements of my comrades on which hangs their salvation.”

Thus died Wulff, sacrificing himself for the results from which he had expected so much. Often during the latter part of the journey he had maintained that the collections which we had brought with us under all adversities had gradually become so dearly-bought that now they must be considered even before our own welfare. Therefore, at the critical moment, he made his dispositions with stoic calm and took his departure from the people nearest to his heart. His letter to his young daughter was a last caress of a father, marked by death, to the one who in life he had set above everything. Words at once proud and tender, which ought not to be reproduced here. But his filial greeting from the threshold of death to his old parents, who would in vain await his return, we reproduce with their permission as the most beautiful memorial that can be erected over a dying man :

“ With stiff frozen fingers, merely a final greeting before I, exhausted with the adversities of the journey, lie down to rest. I await death with a perfectly calm mind and in my heart is peace. Up to the last I have honestly striven to honour our name and hope that the result of my work may be saved. Thank you for all the good you have bestowed upon me, as a gift for the wanderings of my life, ever since my earliest childhood.”

## CHAPTER XV

### HOME TO THULE

THE first three weeks we spent in Etah were entirely occupied in regaining our strength as quickly as possible. It was quite uncanny to see, as soon as we got our clothes off, how hunger had ravaged our bodies ; we were so thin that ribs and chest especially showed sharply through the skin. But although we had been as bad as we could possibly be if our lives were to be saved, it was surprising how soon we recovered. It was as if our entire organism had been purified and renewed, for after less than a month had elapsed we were in better form than we had ever been before. We were then able to set to again, and much we had to do and many dispositions we had to make. We now knew that no ship would arrive to fetch us, and that we must calmly look forward to another wintering. This period of waiting, with its primitive conditions of life, could scarcely offer us opportunities for important work. We must go southward as soon as might be, for it was clear that a prolonged stay in Etah would not be possible.

The Eskimos' autumn hunt had entirely failed, and it would be unjustifiable of us to use more than was strictly necessary of the American provisions our hosts possessed ; in the course of the winter they themselves would need them. Already by the end of September every day meant a fight for meat. There were a fair number of hares in the neighbourhood, and they were eagerly hunted, but although the bags were good they did not last out well, for no less than twenty-eight people were living in the house of the expedition. Twice a day we gathered for a big common meal towards which every hunter contributed ; but although the will to give was there, it was



## HOME TO THULE

obvious that it would be preferable for us to move on to new feeding-grounds.

But the expedition had still two tasks unaccomplished. We were very unwilling to leave the district without having done our utmost to bury Wulff; and the collections of the expedition were yet lying by the point of descent near Cape Agassiz, and these would have to be fetched as soon as possible; otherwise we ran the risk of bears or foxes destroying the depots. For an immediate start none of us had the clothes, and, apart from a few supplementary articles, nothing was to be had at Etah. Our outfit had to be procured from one of the larger camps near Inglefield Bay, where we knew there was always an abundance of those furs which we so badly missed here. So we made the following arrangements:

Koch should remain, until further notice, in Etah, with some families who did not wish to go southward yet. All the others were to leave Etah and attempt autumn hunting on the new ice to the south, whereby the question of provisions would be easier for those who remained. They had yet considerable stores of cereals, flour, peas, vegetables, and pork. It was fresh meat we were short of as long as there were many of us.

Together with all the southward-bound sledges, I was to cross the glacier to Neqe, wherefrom, as soon as the conditions of the ice permitted, I was to force the journey to Thule. It was high time that, from my station, I should prepare as well as possible for another wintering. Immediately after my arrival Peter Freuchen was to journey up to Koch, and with the latter undertake the journey to Inglefield Land. Ajako and Bosun, who were to accompany them on this journey, must for the present go to Igdluarssuit, where I would find clothes, dogs, and other outfit for both of them. Only in this way did we think it possible to carry through the task which yet remained.

An attempt which had already been made to bury Dr. Wulff and to fetch our things near the inland-ice had miscarried, and that although the task was left in the hands of Ajako, he being the one who was soonest restored to health after our arrival at

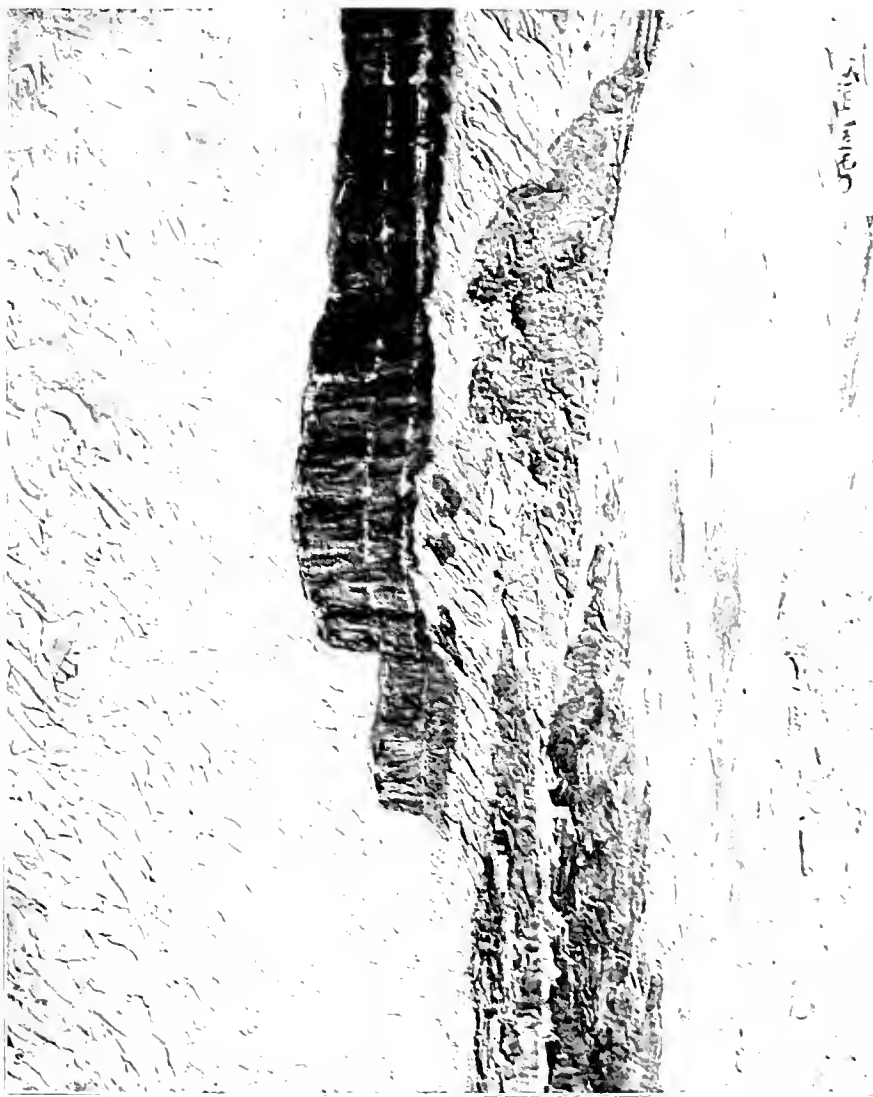
## GREENLAND BY THE POLAR SEA

Etah. The point was to utilize the period before the Polar darkness descended, wherefore I had borrowed a team of dogs for Ajako, who, with two Etah sledges, started on the 19th of September the same way across the inland-ice as that by which we had come. Unfortunately, the ill-famed autumn storms began immediately after his departure, and on the 27th of September we all had the disappointment of seeing him return without having been able to reach his goal. He said that up on the glæcier they had been weather-bound for a whole week, during violent drifts of snow, and as the dog food was exhausted and their own provision almost eaten up, they had been forced to turn back. On this journey Ajako and his companions had been provisioned chiefly with walrus, which he himself had shot during the stay at Etah. It was not possible to procure more dog food for a quick fresh start and a prolonged absence, and this was the reason why we found ourselves forced to fetch meat from neighbourhoods with ampler supplies on the other side of the inland-ice.

Koch was given the task to go north and carry out the work already mentioned, as soon as the necessary outfit was ready. By Igdluarssuit and Ulugssat I succeeded in the course of a week, by borrowing and buying, in finding outfits for Ajako and Bosun, both with regard to dogs and clothes; they then left immediately to fetch, via Etah, the collections by Humboldt's Glacier, which could now be reached by the ocean-ice. But Koch's clothes were not yet ready, and as it took a longer time than originally estimated to get into communication with Freuchen, I told Koch to let Ajako and the others drive up for the collections whilst he himself was to await Freuchen's arrival. In the company of the latter he was then, when his own outfit was ready, to drive up to the clough to the north-east of Cape Scott to bury Dr. Wulff.

In various ways, however, the sledges were delayed, and when at last they reached Etah, with Freuchen still absent and Koch's outfit unfinished, Koch was of the opinion that the daylight was already now so weak that it was high time to start. Resolute as always, he decided to accompany Ajako, and

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John Frost

Achton F.C.



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because of his worn-out clothes he endured an unusually hard voyage in the cold autumn. The district round Cape Scott was reached one of the last days in October, but unfortunately it soon proved impossible to find the place where two months ago we had parted from Wulff. At that time the land had been quite snow-bare, but now there was much snow; cloughs and stones were drifted over, so that the place was unrecognizable, it being difficult to get a proper survey of the land because of the faint daylight. Further search had to be given up, and the expedition limited their activities to the fetching of the collections near Cape Agassiz. All these arrived in Thule in good condition in the middle of November. My own journey from Etah to Thule, which was hampered in many ways because of the season, I will describe by the following notes from my diary:

On the first of October I set out with the Etah sledges across the fjord-ice to the glacier. We break up in a terrible storm; it always blows at Etah when there is a clear sky and fine weather in other places. The storm and the drifting snow pursue us right up to the inland-ice, where we pitch our tent at three o'clock in the morning after fourteen hours' driving.

A very cold night.

As I have no sleeping-bag, I wake up with chattering teeth after two hours' sleep, and propose to set off. We start at seven o'clock in the morning after a few warming basins of tea.

Fine, calm weather, heavy going, a good deal of snow on the glacier, but we decide to stick it—and we do stick it in spite of laggard dogs—and arrive at the camp of Neqe, without having had any more sleep, at four o'clock in the morning of the 3rd. Great reception by women only. The men had gone out hunting reindeer in Inglefield Land on the day previous to our arrival.

There was now new ice seaward as far as we could see, with open water alongshore some way into the fjord.

We remained at Neqe for a day, and were heartily enter-

## GREENLAND BY THE POLAR SEA

tained all day through in all the houses with feasts of delicious Mattak.

On the morning of the 5th we must once more cross the inland-ice by the mountain Naujártalik, and we arrived across a local glacier at Igdluharssuit in the evening. Here lived Sipsu, who had accompanied us on the outward journey to Hall's Grave, and our reception was no less hearty when we met old travelling companions. Clothes were made for ourselves, musk-ox skin was prepared for sleeping-bags, and at length clothes for Koch were ordered.

A few days later I attempted to continue to the head of Inglefield Gulf, intending from there to cross the inland-ice towards Thule, but unfortunately I had to turn back because the new ice would not carry me. By the camp itself there was excellent autumn hunting on shiny ice, and our companions from Etah quickly got their share of this, but it was important for me to push forward so that Koch and Freuchen could go north again before the days became too short, and by the 14th I had started southward again with Harrigan.

Our route lay behind Qana via Iterdlagssuaq across three big lakes and a small glacier which led down to Kangerdluarsuk. Strangely enough, far inland we here passed a river which ran from the inland-ice out towards the middle sea, the water of which was quite salt and undrinkable.

Further in we passed between two glaciers, which meet each other approximately by the point of descent to Kangerdluarsuk. The cross-pressure of the glaciers has ploughed up the stones of the ground so that from above it looks as if a mighty stone-paved high road is running between the two glaciers. Some way further down, where these have worked closer towards each other, the pressed-up moraine, which consists only of big stones, assumed the character of a ridge, broad at the base but sharp towards the top, looking most phantastic.

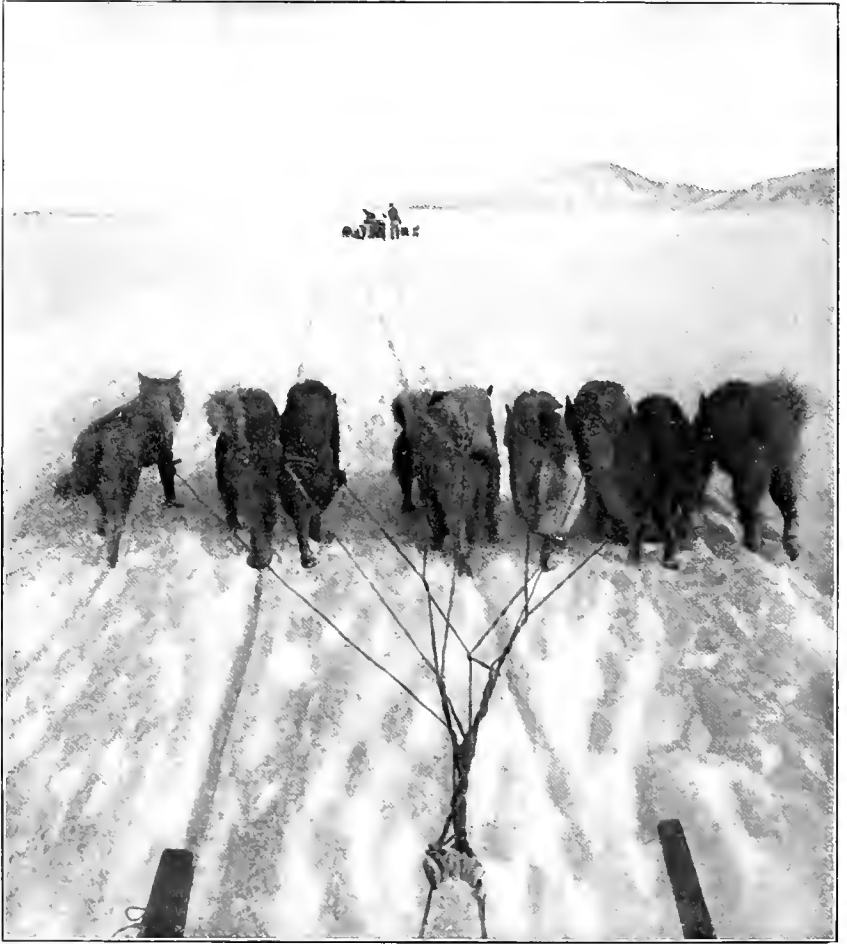
Outside the mouth of the little Kangerdluarsuk, however, we met again with the open water which had stopped us the last time, so I made a new decision, as under no circumstances would I again return. I would attempt to go up across the



OUR HOSTESS : ANE SOFIE FROM KANGERDLUGSSUAG



MISSION HOUSE AT KANGERDLUGSSUAG



OUR DOGS



## HOME TO THULE

glacier again, driving behind Quinisut, and by this way reach right into the head of Inglefield Gulf, which should now be covered with ice.

We spent a day in seeking a point of ascent to the glacier, and at length we succeeded in finding a place where we decided to make the attempt, although it did not look very inviting. Steep glacier-edge in which we had to hew steps; slippery blue ice where we must keep our balance, in constant danger of sliding down again. For 1 kilometre we had to carry our goods on our backs across a steep mountain and through soft snow. At length, after four hours of toil, we were so high up that we reached the snow and soon we could begin to drive. In the evening, as darkness fell, we drove down across a snow-bare mountain-land littered with big, loose stones which often rolled down, racing with ourselves when the sledge or the dogs happened to loosen them. Along a river we reached the coast, and on the following day we intended to try the ice. At dawn, after a good night's sleep in warm musk-ox skins, we attempted the fjord-ice. Alas, neither would this carry us!

Wait we would not, so we had to get up across the ice, first along the glacier up to the funny mountain crags of Qátarssuit, so named because at a distance they look like two buckets turned upside down. But now we found it impossible to descend the glacier. After a few hours' search in a snowstorm, which fell on us with such violent gusts that often we were blown off our feet, we found at last a river-course which went right into the glacier like a big artistically bored hole. From this opening one looked into a black bottomless gap; but we reckoned out that the river, when at some time it bored through the inland-ice, must have burst for itself an outlet by the moraine. With a strap round our waists we therefore let ourselves slide on to this toboggan run and rush into the darkness, an adventurous race which ended in us suddenly finding ourselves hovering in the air above the moraine as if spewed out from the gap of the monster. We then increased the length of the line and slowly let ourselves down to the fjord. In the same way all the dogs and sledges were gradually transported,

## GREENLAND BY THE POLAR SEA

until the last man, doubling the line through a hole knocked in the glacier, finished the many aerial journeys of the day.

On two big lakes, across good land with fine snow, we came down to the shore from which the descent on to the ice took place. That was the most adventurous drive I have ever experienced. The run was so steep that only with the greatest danger could one descend after having first lowered the sledge some way down. The mountain which we passed in this way was some 600 metres high.

At length we were down on the ice, and when darkness set in we were warmly embraced by Pastor Gustav Olsen at the mission station of Kangerdlugssuaq.

On the 17th of October we arrived at the mission station and rested for a few days to draw breath after the journeys of the last strenuous days. From morning to night all the inhabitants of the camp vied with each other in feasting us, and the menus included not only the beloved Mattak, but also delicacies like reindeer meat and salmon.

During our visit there was a memorial service for our deceased comrades, when Pastor Olsen spoke with such pathos that all the inhabitants of the camp who were present at the service were moved to tears.

On the 21st of October we departed, and, accompanied by two brothers from the mission station, we drove right across the snow-bare stony land via the great salmon lake to Olrik Bay, and thence once more across the inland-ice to Thule, where we arrived on the 22nd of October.

### THE ARRIVAL AT THULE

It was as if all houses suddenly sneezed at once; from every entrance a crush of people poured out, stormed towards us and surrounded us. Only Harrigan's young wife did not come out; she was so overcome by joy at our sudden arrival that she broke out weeping, unable to rise from her bench.

I hastened down to Freuchen, whose house lies about a quarter of an hour's walk from the camp of the Greenlanders.

## HOME TO THULE

He was lying in bed reading a year-old copy of *Lolland-Falster Folketidende*. He was taken entirely by surprise ; I entered the room before he had time to collect himself, as if shot up through the floor, fresh from my journey with the cold reeking from my clothes.

The eyes with which my old friend looked at me I shall remember as long as I live. I was back again in Thule !

## APPENDICES

### FLORA AND FAUNA ON THE NORTH COAST OF GREENLAND

BASED ON DR. WULFF'S NOTES

By C. H. OSTENFELD

PAGE after page of Thorild Wulff's diaries testify to the fact that his thoughts occupied themselves greatly with the problem: How is it possible for plants and animals to live and reproduce themselves under such harsh conditions of life as the high Arctic regions offer, and what peculiarities are they which enable them to do so?

The problem is not a new one. On the contrary, it has forced itself upon every Arctic explorer who keenly observes the natural characteristics of the regions through which he travels. In the course of time numerous contributions have appeared with regard to this problem, but many aspects are still unsolved. Neither do Wulff's notes present a final and exhaustive reply, but they contain several new observations and conclusions, thus forming new stones to be added to the many-roomed building of our knowledge.

#### FLORA

In the Arctic countries, as everywhere else upon earth, the flora forms the foundation for the fauna. Where no plant exists, no animal life is possible, for all creation of organic matter is due to plants. The animals, on the other hand, are merely consumers. If they are herbivorous they consume directly vegetable matter, and if they are carnivorous they consume the flesh of herbivorous animals. In both cases we find as the last instance the plants as the bearers of life.

When we consider the flora and fauna of the north coast of Greenland, it would therefore seem natural that we should commence by an examination of the flora, investigating the conditions of life with which they must contend. The climatic conditions are anything but favourable, and only the hardiest plants with the most modest requirements can exist in these regions; therefore the number of plant varieties is only small—about sixty flowering plants—and they all bear a certain common stamp.

In order to thrive a plant requires: Nourishment from the soil, a certain amount of heat and moisture, and light. The first condition is fulfilled almost everywhere in the Arctic regions, so poor in plant life, by the presence of nutritive salts. The soil produced by disintegration (frost, etc.) is as a rule more than sufficient for this purpose, as the plants do not grow so closely that they have to fight with each other for the nourishment in the ground. This

## FLORA AND FAUNA ON THE NORTH COAST

claim of life we may thus put aside, but it is worth noticing that vegetation is richer where the ground consists of certain kinds of rock—for instance, limestone, than of others—for instance, ground rock. This, however, is no peculiarity confined to the Arctic regions.

The second condition of life—heat—is in the Arctic regions present to such a small degree that it becomes of definite significance to the luxuriance of plant growth. We will therefore examine this point more closely, deciding from the outset that plants cannot grow at temperatures below freezing-point. On the other hand, Arctic plants can put up with being frozen stiff without detrimental effects. Their growth stops, but as soon as they thaw they recommence their growth. Thus Wulff observed (on the 4th of May) a tuft-saxifrage with fully developed flowers on inch-long stalks; it was quite frozen, the temperature of the air being minus  $11^{\circ}$  C., but all tissues seemed capable of life, and when spring returned it would, without doubt, directly continue its development.

On the north coast of Greenland the temperature is above freezing-point only during a short period of the year. At noon on the 30th of May the first positive temperature of the air was observed (plus  $0.8^{\circ}$  C.), and by the end of August the continual frost again sets in. There is thus only a period of at most three months within which the plants have to grow, flower, and fruit, and store nourishment for next year. And how many hours, or even days, within this short time must be subtracted because snow and cold stop the growth! In the middle of June Wulff wrote in his diary (17th of June): "The vegetation is yet in its winter repose. The soil is frozen; the plants which I brought from our previous camp cannot yet be pressed, as the clumps of moss and pieces of soil attached to them are frozen rigid." He is of the opinion that, on the whole, vegetation revives only by the summer solstice, and writes very aptly: "The 'explosive' development of the Arctic vegetation takes place in a kind of staccato—rapidly during the warm, light hours, and ceases entirely during the many long, cold, windy days of sleet."

One would think it impossible for plants to manage with so little warmth, but it is sufficient for the most frugal among them. It is a help to them that the soil and the plants themselves are warmed more quickly and to a higher degree than the surrounding air. It is a well-known phenomenon that a dark surface subjected to the rays of the sun becomes warmer than the air; and in Arctic regions this fact is undoubtedly of great importance for the growth of the plants.

Similarly to other Arctic explorers, Wulff has repeatedly measured the temperature on various types of ground in order to obtain statistics to illustrate this point. A few of his results will be given here to demonstrate the various differences:

*May 19th, 2 p.m.*—A hill sloping towards the sun. Calm, clear sunshine (McMillan Valley).

Temperature of the air in the shade minus  $11.8^{\circ}$  C.

The thermometer with its ball of mercury:

1. On a light-brown, sunny cliff of sandstone: minus  $1^{\circ}$  C.
2. On a sunny clump of saxifrage: plus  $2.8^{\circ}$  C.
3. In cespituous moss: plus  $9.2^{\circ}$  C.

*June 20th, 4 p.m.*—A slope to the west. Calm, clear sunshine (Chip Inlet).

Temperature of the air in the shade plus  $5^{\circ}$  C.

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The thermometer with its ball of mercury :

1. On a sunny, flowering tuft of saxifrage : plus  $21.1^{\circ}$  C.
2. 2 cms. down in dry, sandy soil : plus  $14.2^{\circ}$  C.
3. 6 cms. down in moist, sandy soil : plus  $12.5^{\circ}$  C.
4. 12 cms. down in moist, sandy soil : plus  $7.3^{\circ}$  C.

*July 15th, 1 a.m.*—A slope 100 metres above sea-level. Plentiful vegetation. Calm, clear sunshine (Summer Valley).

Temperature of the air in the shade plus  $12^{\circ}$  C.

The thermometer with its ball of mercury :

1. On a sunny cluster of poppies : plus  $24.4^{\circ}$  C.
2. 3 cms. down in a vigorous green clump of silene : plus  $24.3^{\circ}$  C.
3. 10 cms. down in the same clump (near its bottom) : plus  $11.8^{\circ}$  C.
4. 1 cm. down in moist soil : plus  $18.5^{\circ}$  C.
5. 13 cms. down in moist soil : plus  $14.8^{\circ}$  C.

These examples show quite plainly that the plants, fortunately for them, get considerably more heat than one might expect, judging from the temperature of the air alone. But one must not overestimate the significance of these figures, as they hold good only when the air is calm. The wind naturally cools considerably the surface of the soil and the vegetation, so that on a windy day there will be no appreciable difference between the temperatures of the air and the soil. Further, sun is necessary, so that again on dull days conditions will be different. Thus the limitations must not be underestimated, though it is of importance to note that a sunny slope, well sheltered, always exhibits the most vigorous and the earliest development of vegetation.

In Arctic regions, where snow and ice abound, one would expect there to be always sufficient moisture for the plants; but this is not the case under all circumstances. The ability of the plants to absorb water is relative to the degree of warmth. Below zero the roots of the plants naturally are unable to absorb water; but also at low positive temperatures the absorption of water takes place very slowly. Thus a disproportion between absorption and evaporation from the parts above ground might easily arise when the latter are exposed to strong sunshine. In this comparison one must remember that the soil in the high Arctic countries is permanently frozen at a certain depth; the summer heat is able to thaw merely the upper layers. To satisfy their need of water the plants are thus restricted to the absorption of moisture from this layer, and from the water liberated by the melting of the snow. There may, of course, be cases where this is insufficient, or where, at any rate, water can merely be absorbed to so slight a degree that only certain varieties of plants can manage. Because of the evaporation due to very dry air and strong sunshine, the soil, which first is laid bare when the snow evaporates, often becomes very dry, as the frozen subsoil only to a slight degree permits the water to rise to the surface. Wulff's diary contained many notes about this; for instance, on the 9th of June he wrote: "The snow is melting rapidly, but the water evaporates quickly, so that it does not moisten the soil at all except round the patches of snow"; and not until the 15th of June did he notice that the melting took place to such a degree that the water could run along the ground. He therefore thought it probable that, under conditions like these, the plant roots must be able to absorb the water which presumably rises from the frozen subsoil because of the capillary action between the particles of the dry upper layers. Not until the 10th of July does he write in his

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WHITE-BLOSSOMED SAXIFRAGE IN FRONT OF A STONE BLOCK  
(*Saxifraga Groenlandica*)

Photographed at Disko by Dr. Th. Wulff.



TYPES OF CESPITIOUS GRASSES (FESTUE-GRASS AND MEADOW-GRASS) GROWING IN DRY PLACES  
(*Festuca ovina vivipara*, *F. ovina supina*, *Poa abbreviata*)

Only a small part of the tufts has been prepared.



VARIOUS HERBACEOUS PLANTS FROM THE NORTH COAST OF GREENLAND

Note the position of the leaves, and the flowers on long stalks. At the top is shown *Erigeron compositus*, to the left *Draba alpina*, and beneath *Minuartia verna*, to the right *Melandrium apetalum*, and at the bottom *Pedicularis hirsuta*. The members of the expedition used to chew the latter to appease their hunger.



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diary: "Mild, quiet rain falls for several hours, the first proper rain this year." Thus there is a period—the springtime of vegetation in these latitudes—during which the plants may be exposed to thirst, a fact which one might refuse to believe if one thought merely of the omnipresent enormous masses of snow and ice. Later on there will be more than sufficient water; the snow melts so that the soil becomes slushy, and snow and rain fall in abundance; then the plants have some difficulty in not getting drowned.

If the Arctic plants are thus subjected to pronounced extremes with regard to moisture, the peculiarities do not become less when we consider their relation to the light. To thrive, every green plant requires light, as light is one of the essential conditions for the formation of organic matter from the carbonic acid of the air. In the Far North the winter is a dark period when the plants sleep under their cover of snow, but, as a compensation, during summer there is light both day and night. As far as the light is concerned, the plants are thus able to work and build through the whole of the twenty-four hours, so that the short duration of summer is to some degree counterbalanced. This has been demonstrated by experiments; they really are capable of exploiting this advantage which they have over their kindred of more southern regions, where the darkness interrupts their work.

Summing up these considerations, one may say that high Arctic plants have a much shorter time of vegetation—merely two or three of the twelve months of the year—but that, on the other hand, during this period they have to work incessantly under difficult and harsh conditions.

We shall now see what the plants that are to be found in these regions look like, and how they are adapted to their conditions.

The most prominent feature of the high Arctic plants is the fact that they are low and keep close to the ground. They are mostly herbaceous, though some are low shrubs. Shrubs as we know them, not to mention trees, do not exist so far north.

The largest plant is the Arctic willow. Old specimens of this may, even on the north coast of Greenland, have a stem rather thicker than a finger and more than a metre long; but it lies along the ground, forming by its profuse branching a network through which the leaves and catkins of the year peep out. Similarly to other varieties of willow, it sheds its leaves in the autumn. Another dwarf bush characterizing the high Arctic regions is the Arctic heather, whose tiny evergreen leaves, packed closely together, form four rows along the branches, thereby giving them a square shape; it has beautiful, white, bell-shaped flowers, much resembling the lily of the valley. The whole of the bush is rich in fragrant resinous matter, which makes it excellent fuel.

Two very common dwarf bushes are the red saxifrage and the white mountain anemone; both have rather thick leaves which, as a rule, wither in the course of the winter, but remain on the plant as a protection for the young leaves and buds.

Many of the herbaceous plants form small, close clumps where the shoots fight for room; every shoot has a few fresh green leaves towards the top, whilst the rest is hidden in a thick bed of withered leaves. The flowers shoot up above the surface of the clump. This caespitous formation may be observed in the tuft-saxifrage, in the tuft-silene (where the clumps may be so strongly arched that they almost assume a half-ball shape), in the little white or yellow draba, and in many others, as, for instance, several varieties of grasses.

Other herbaceous plants may have leaves clustering close to the ground,

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and flowers freely raised on shorter or longer stalks, but the shoots are not so close as in the caespitous plants proper. To these belong, for instance, the beautiful yellow or white mountain poppy and several varieties of saxifrage and potentilla.

In moist soil, in swamps and similar places, grow cotton grass, a few varieties of other grasses, and some other plants; for instance, the yellow crowfoot. In these varieties the shoots are spread out and stand singly, as do plants in swamps and fens in this country.

All these plants are perennial; annual varieties do not exist so far north. It is not possible for a flower to sprout, grow, flower, and fruit during the short summer; the work has to be distributed over several years, as one single year would merely give time for a slight production of organic matter. Every shoot forms merely a small piece of stalk and a few leaves, so that several years will elapse before the plant is strong enough to develop flower and fruit.

From the plants of our own country we know that a considerable period generally elapses between flowering and the ripening of the fruit, and as a rule the flowering takes place some time after the leaves have commenced their development in the spring. An Arctic plant has not all this time at its disposal, having to flower and fruit during a period of vegetation of two to three months. In most Arctic plants the flowering therefore takes place immediately after the development has commenced in the "spring." The red saxifrage is the first vernal flower of the high north. Wulff saw it flowering already on the 12th of June, this being a time when vegetation in many other places had not awakened from its winter rest. But after that things developed rapidly. About two or three weeks after the vegetation as a whole had begun to move, most of the varieties were already in full flower (July 7th to 14th), and by the beginning of August (2nd) the red saxifrage, mountain anemone, and others, were already in "an advanced stage of fruition." The summer was nearly over, and when the expedition after the march across the inland-ice once more came down on ice-free land on the 24th of August, it found the vegetation in its full autumnal garb, with ripe seeds and yellow and russet leaves.

Thus the plants have a busy time, and they are only enabled to carry out their programme by considering carefully the hours, and by being prepared to set to as soon as spring comes. If one were to examine an Arctic plant immediately before it goes to its winter rest, one would be surprised to see how big are the buds of next year. If the outer protecting husks of such a bud are removed, one will find inside these both leaves and flowers already far developed. They remain in this state throughout the winter, their living tissues, as already mentioned, being able to resist very strong cold; and as soon as spring beckons they burst out. By this the speedy flowering is made possible, and this, again, gives sufficient time for the ripening of the fruit just at the time when the temperature is at its highest.

The plants which flower earlier are those which become uncovered soonest when the snow in the spring begins to evaporate, and those which have been uncovered by snow through the winter. These are the most hardy varieties. The more delicate—if one may use the word "delicate" in connection with the hardy vegetation of the high North—are covered with snow during winter, and only emerge from its protective cover when the melting of the snow commences in earnest. For the snow plays an important part in plant life, as it prevents too sudden changes in temperature, and also protects them



A MANY YEARS OLD SPECIMEN OF THE ARCTIC WILLOW (*SALIX ARCTICA*)

The stem and branches were lying along the ground. To the left a male catkin in full bloom.  
Murray Island, July 3rd.



SECTION OF THE THICKEST STEM OF  
WILLOW WHICH THE EXPEDITION  
FOUND. TO THE RIGHT TRANSVERSE  
SECTION OF SAME. NATURAL SIZE

AN EXCEPTIONALLY VIGOROUS SHOOT OF ARCTIC  
WILLOW: LARGE, BROAD LEAVES AND LONG FEMALE  
CATKINS

Summer Valley, July 13th.



A small reed (*Juncus biglumis*) with flowers of the last three years. Note the scanty growth of each year. Below: two specimens of saxifrage (*Saxifraga nivalis*), taken at a month's interval. To the right the flower stalk has not reached above the leaves, to the left it bears fruit.



YELLOW-BLOSSOMED SAXIFRAGE (*SAXIFRAGA FLAGELLARIS*) WITH LONG THREAD-LIKE RUNNERS WHICH CARRY SMALL SHOOTS AT THE END

The specimen on the right was taken sixteen days before the one on the left, so that the rapid development of runners and flower is apparent.

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against a too vigorous drying-up by the wind. Many varieties were only discovered by Wulff during the month of July, as they had been hidden by the snow until then. In his diaries he repeatedly expresses his surprise at finding that first one and then another of the varieties are missing; but later on the error is corrected: "It is here after all, but it was covered by the snow."

As already mentioned, all the various species are perennial, this being in accordance with the short period of vegetation. Yet another fact must be mentioned in this connection: several Arctic plants do not get time for a yearly ripening of their fruit. This may be due to an unusually early arrival of autumn, with frost, or to a late spring, so that the plants become bare of snow very late. Under these circumstances annual plants would soon have to give up; but the perennial plants, on the other hand, can wait for a favourable summer. There are Arctic plants which only occasionally reach the state of fruition, being limited during other years to a mere state of vegetation.

The Arctic flowers have often been praised for their size and their clear colours, and considering their hard conditions of life one cannot help wondering that so much beauty can be developed; but nevertheless they are very modest in comparison with the flowers of our homely plants. It is the desolate surroundings which make the Arctic flowers so conspicuous.

The pollination of the flowers and the subsequent fertilization is, of course, the prelude to fructification. Pollination takes place either by the aid of the wind, the pollen being carried along through the air, when it is a matter of chance whether or no it will alight on a flower, or by the aid of the insects; thus it is also in high Arctic countries. In the short summer, flies, humblebees and multi-coloured butterflies flit from flower to flower in search of honey and pollen, and these simultaneously undertake the pollination. The more open flowers, like the poppy and the anemone, attract the flies, whilst the butterflies lower their long probosces into the nectary of the silene, the red saxifrage, and the Arctic stock or night-smelling rocket, a rare plant found in several places on the north coast of Greenland. This latter possesses a strong odour, a very uncommon quality among Arctic plants. White or yellow are the most frequent colours of flowers, but red in various shades is also to be found; blue, on the contrary, is very rare in the Arctic regions, and no flower found on the north coast of Greenland is of this colour.

So far we have only considered the flowering plants; but besides these a considerable number of mosses and lichens exist. The lichens grow especially on the naked rock, which in many places they adorn with their vivid white, yellow, and reddish colours, whilst the mosses mostly grow on the soil among the flowering plants.

Also a few fungi are to be found on the north coast. Wulff mentions small yellowish-brown toadstools and white puff-balls. The latter are edible; he mentions a really good dish made from the product of the land: musk-ox soup with brent-geese bones and a couple of handfuls of chopped puff-balls.

I shall not go deeply into the matter of the way in which the various plants combine into a plant society. I will merely mention that vegetation is not evenly distributed. For the most part the soil is almost bare, with single or scattered plants; but in the more fertile places—for instance, where the excrements of the animals have fertilized the soil—the plants occasionally form an entirely connected cover; but these spots are not extensive. In the bogs one also occasionally meets with a rather dense growth of plants, mostly mosses and grass.

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A distribution of plants peculiar to high Arctic regions is the so-called "chequer-ground." When the snow melts, the loose, flat ground will in several places turn to a porridge of sodden sand and clay. When this porridge freezes or is dried up, cracks will, according to physical laws, be formed in it, so that it becomes, as it were, divided up into a lot of many-sided little spaces framed in the network of the cracks. This structure may keep its form for years, and in this case the cracks will become deeper. When the plants invade this ground they generally settle in the cracks, the seeds being blown there by the wind, the plants finding there the necessary shelter. In this way the network of the cracks becomes covered with plants, whilst the "chequers" themselves remain bare. This chequer-ground is, according to Wulff's diaries, very common on the north coast of Greenland.

### FAUNA

When we consider how scanty is the vegetation, it is really surprising that animal life on the north coast of Greenland is so rich, and especially that so many large animals are to be found. Much has been told of these animals in Knud Rasmussen's narrative, as they were of vital importance to the expedition.

If we keep to the land animals and consider especially the larger of them—i.e., mammals and birds—it would seem natural to divide them into herbivorous and carnivorous animals.

Among the herbivorous the musk-ox is the foremost. The expedition depended chiefly upon this animal for its food, and it was mainly due to the fact that musk-ox was found only occasionally on the north coast, and in a considerable number only in one place (in one fjord), that men and dogs suffered so much from hunger. Why the musk-ox preferred this one place we do not know. The vegetation was no more vigorous in the musk-ox fjord than in other places; but in the whole district it was so sparse that probably the limit of what a musk-ox can be content with had been reached. This is indicated by the fact that the expedition did not meet with any calves.

Wulff examined several stomachs of musk-oxen, and always found them filled with twigs of willow and, to a less degree, with leaves of anemone and other plants.

Two herbivorous mammals which were very numerous were the Arctic hare and the little Arctic lemming. The former of these played an important part as food for the expedition; the latter is so small—its size is between that of a mouse and a rat—that it has no significance as food for men and dogs. The fully grown Arctic hare is white all the year round, with merely a slight dark shade on the head; but the young which were observed in the beginning of July were greyish-brown. The hare was common everywhere, and lived on various plants; according to the observations made by the *Danmark* Expedition on the east coast of Greenland, it was especially fond of the roots of the Arctic willow, which it dug up with its forepaws and snout.

The little greyish-brown lemming is a very timid and nervous animal, which chiefly keeps to its subterranean den, where it hibernates during the winter. In some places, especially where vegetation was vigorous, it existed in great numbers, though it was not often seen, because of its timidity. It would occasionally set out on a long journey; thus, for instance, it was met with a few times out on the fjord-ice. Wulff relates a very funny experience on the 23rd of June: "Several kilometres out on the fjord-ice I met a small lemming, quickly trotting along across the immense white field of snow. As I did not



#### HERBACEOUS PLANTS WITH ROSULATE RADICLE LEAVES

The withered leaves served as a protection for the new leaves and flowers when they were buds. Above—on the left: arctic stock (*Hesperis pallasi*); on the right: dandelion (*Taraxacum*); beneath them a potentilla.



WHITE PUFF-BALLS (*CALVATIA*) AMONG GRASS AND WILLOW LEAVES

Photographed at Disko by Dr. Th. Wulff.



TYPES OF GRASSES GROWING IN MOIST PLACES

(*Eriophorum Scheuchzeri*, *D. schampsia cespitosa arctica*, *Pleuropogon sabinei*)

Two of them have long, horizontally-growing suckers.



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feel disposed to go far out of my way for the sake of the little mite, I whistled, with the result that the lemming stopped at once. Every time it recommenced its rolling along, like a fluffy little ball of wool, I whistled and made it stop. When I came stamping up to it on my large snowshoes, the Lilliputian sat up on its hind legs, spat at me, and showed its teeth. The little wanderer ended its days by a slight knock across the snout."

Of the birds, the ptarmigan is most common. The expedition met with it wherever it went. In the beginning it was white, but, as summer advanced, first the ptarmigan hen and later on the cock became speckled with brown. It subsisted on parts of plants; Wulff found, for instance, many buds of the red saxifrage in its crop. Evidently the ptarmigan here in the north live in couples—not in polygamy, as they do further south—and from approximately the middle of June nests with eggs were found. Young were seen in the latter part of July.

The other herbivorous birds which the expedition saw on the north coast of Greenland were migratory. First the snow-bunting appeared; as early as the 24th of April it was heard twittering when the expedition was on its way to the north coast (N. Lat. 81°). The others came later on. The swimmers were: The brent-geese, the king-eider, and the long-tailed duck; of these only the brent-geese was common; it was seen for the first time on the 11th of June—that is, during the first days of spring.

As a link between the swimming birds and the carnivorous animals we may put down the waders, which live on small animals in the pools, and are also truly grateful for the half-rotted and floating parts of plants amongst which the little animals are found. Of these the most common were the sandpipers and the turnstones. The sandpipers arrived first, being seen as early as the 30th of May, whilst the turnstone was not observed until the 10th of June. About the 1st of July the first eggs of these birds were found, and on the 20th their young were seen.

Terns and gulls are carnivorous. They were not observed very frequently. The tern was seen in the middle of June, the gulls (herring-gulls and ivory-gulls) both before and after this date. Very common was the little Arctic gull with its elegant bifurcate tail and its long wings; it arrived on the 9th of June, and its young appeared just after the middle of July. It is a proper beast of prey whose food mainly consists, to judge from the contents of its stomach, of the little lemming; this agrees with the observations of the *Danmark* Expedition.

But the worst robber amongst the birds in these regions is the snowy owl, which was seen occasionally, and the nest of which was also found. Neither the raven nor the Icelandic falcon were observed on the north coast of Greenland; but no doubt both birds would occasionally pass these districts on their long flights.

The carnivorous mammals are generally observed singly or a few together; there is not sufficient food for them to congregate in great numbers. The members of the expedition often saw the white Polar wolf slinking about at a safe distance like an uncomfortable reminder. Also the Polar fox and the ermine are occasionally observed. The Polar bear seems to be very rare on the north coast; only at rare intervals were its tracks found, and a newly killed young seal by Dragon Point was assumed to have fallen a victim to it.

As the sea off the coast and in the fjords is permanently frozen, one cannot expect to find many marine animals. There were, however, several seals fre-

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quenting the lanes along the coast. As Knud Rasmussen has told us, they were eagerly hunted by the expedition, as a rule, unfortunately, without success, as the shot animals sank down into the fresh water; the freshness of the water is due partly to the afflux of water from land, partly to the melting ice.

Their food consisted of sea-scorpions, halibuts, Polar cod, and various animals from the bottom of the sea.

On the north coast of Greenland, contrary to other Arctic regions, bird-cliffs seemed to be entirely lacking. Consequently none of the various auks were observed, and the fulmar, which also breeds on the bird-cliffs, was seen only once; the three-toed gull was not seen at all.

Of lower animals the insects are specially noticeable. Wulff has many notes about them. Flies and gnats were most numerous, but as we have already mentioned under the fertilization of flowers, humblebees and butterflies were also found. Unfortunately, one knows very little about the wintering of these insects; some of them evidently winter as fully grown insects, others as pupæ and larvæ, and others probably as eggs. It is remarkable that a fully grown insect or a larva is able to resist the long and terribly cold winter.

On the 30th of May—the first day of a positive temperature by noon—Wulff for the first time saw gnats; evidently they had hibernated through the winter, and then been revived by the warm rays of the spring sun.

Half a score of days later (9th of June) he observed big flies playing and mating on the canvas of the tent. They had probably wintered as pupæ. Their eggs were subsequently found (25th of June) in great numbers on the musk-ox skins.

A large, woolly, yellowish-brown larva of a butterfly was observed by Wulff walking in the snow between the twigs of the Arctic willow as early as the 3rd of June, and again on the 9th of June. He then wrote in his diary: "Does it winter as a larva? I am sure it does, for there is nothing for it to eat; also, it is already full-grown."

A month later (13th of July) fully developed butterflies are seen on the flowers—reddish-brown mother-of-pearl butterflies. Somewhat earlier (22nd of June) the humblebees appeared.

Spiders and earth-mites also support life in these high latitudes; and we must not forget that even here the larger animals are not free of parasites: lice and intestinal worms worry the mammals, and the birds have their louse-flies.

Thus quite a series of animals exist even under the harsh and poor conditions of the Polar countries. Their organization and mode of life are each in their own way adapted to their surroundings. Birds and mammals have their animal heat and their thick cover of feathers or hairs wherewith to resist the cold; most of the birds, however, migrate to the south during the coldest period.

Most of the mammals and those of the birds which, like the ptarmigan and the snowy owl, remain in the Arctic regions, are white in winter or all the year round, evidently a protective likeness to the surrounding snow-fields.

The lower animals would appear to be adapted to the Arctic conditions to a far smaller degree; they are unable to withdraw during the unfavourable period as do the migratory birds, and they remain hibernating through the winter. Their power of resistance must be due to internal causes. Immobile and frozen rigid, they await their waking up to a brief aerial life in the light Arctic summer.

# GEOLOGICAL OBSERVATIONS

By LAUGE KOCH

## I

THE districts through which the expedition travelled were, from a geological point of view, practically unknown; but as numerous fossils had been found in Ellesmere Land, which was not far distant, there was reason to expect interesting work for the geologist in North-West Greenland.

Almost everywhere in Greenland one finds that the coast—similarly to the Norwegian and Swedish “Skjærgaard” \*—consists of gneiss. This was also the case in the southern part of the districts we surveyed right up to Cape York. The regions to the south of Cape York in Melville Bay clearly illustrate what, for instance, Norway must have looked like in the Ice Period; only the outmost skerries and islets are free, whilst the entire coast is covered by enormous glaciers, the crevassed surface of which is only occasionally broken by steep mountain-tops which push through the ice as nunataks. To the north of Cape York the land is less glaciated. The edge of the inland-ice lies some distance into the country, and only through the larger valleys do glaciers push down to the coast. Thereby the whole landscape changes in character, and this change is further emphasized by the fact that the coast consists of quite other kinds of rock. The gneiss which was found south of Cape York is observed also in several places right up to Humboldt's Glacier, but as a rule it is in this neighbourhood covered by sand and limestone, which form plateaux with steep cliffs out towards the coast.

Even at a distance these coastal mountains give to the landscape a peculiar beauty. One sees at once that they must have been deposited in the ocean, for they are very regularly stratified. The single strata vary in colours, some are almost white, others are yellowish-grey, pink or brown, and through all these strata one sees in many places black veins of diabase. The diabase once burst through the layers as glowing lava, or forced its way between them, and now lies as a protective cover above the lower layers. This fact is plainly visible at Thule, where the upper stratum of the so-called “Camp Mountain” consists of a diabasic cover, which has protected the underlying sand and limestone.

If one examines these layers more closely, one finds at once that they must have been deposited in shallow water. In several places the lowest layers of sandstone are seen right above the gneiss. They then form a conglomerate with greater and smaller fragments of the underlying gneiss. These blocks are, as a rule, beautifully rolled and polished, like pebbles. Thus the lower layers are pure beach formations; but also the superincumbent sandstone is deposited in shallow water, for many of the strata are beautifully furrowed by the beat of the waves, as we see it nowadays on a good bathing beach.

\* “Skjærgaard”: the belt of rocks and islands girding the coast.—TRANS.

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Being deposited on it, these layers of sandstone are, of course, younger than the gneiss. No fossils have been found in them, and it is therefore difficult to decide their age; one may, however, state with certainty that they are older than almost the whole—probably dating from the very earliest part of the Silurian Period.

If one travels northward past the mighty Humboldt's Glacier to Washington Land, the landscape again changes entirely in character. Here also the cliffs are steep and stratified, but they stand like a vertical wall along the entire coast, and only at a good distance from the coast can one see the inland-ice in the background above the mountains.

These districts which, looked upon as a landscape, are so monotonous, prove on closer examination to be among the most interesting in all North Greenland.

Wherever one lands under the steep mountains one finds stones full of fossils. These fossiliferous strata are found not only on Washington Land, but they also form a broad belt of plateaux right up to Peary Land. It therefore seems natural in considering these formations to take them as a whole. This chain of plateaux mountains, which have a height of upwards of 1,500 metres, forms the border of the inland-ice to the north. Only occasional narrow valleys cut in between the plateaux, and through these long, almost horizontal, glaciers stretch down until they reach the sea.

Examining the fossils more closely, one will soon discover that the rocks may be divided in several strata, every stratum having its characteristic fossils. One will further find that these strata alternate in a definite succession everywhere in the north-west of Greenland.

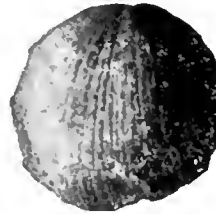
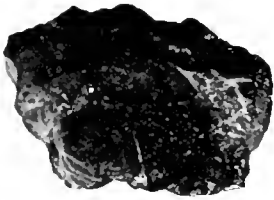
The oldest layers are found in the southern part of Washington Land and in a narrow belt on Warming Land right in against the inland-ice. The barren plain which we called the Midgard-Snake consists of these types of rock. In this place the layers are superincumbent on sandstone with diabase. They are of dark brown limestone with sparse remains of large octopus; the so-called orthoceratites, consisting of long tubes divided into compartments, sometimes straight and sometimes spiral-formed. One sees the same animal forms in flagstones and stair-stones.

On the dark brown limestone lies a mighty series of grey and reddish lime. It is mainly these layers which form the great barrier against the northern push of the inland-ice. At a distance the mountains look extraordinarily monumental; as a rule they have almost vertical walls which, especially when the sun is shining on them, take on a beautiful rust-red colour. Their tops are flat, and in many places they are covered by a level ice-cap. Very peculiar are the deep cloughs and canyons winding their way between the plateaux. Whether these cloughs are formed by glaciers during the Ice Period is rather doubtful; it would seem more probable that they were present, at any rate partly, before the Ice Period. One of these canyons, the Devil's Cleft, we passed on our way towards the inland-ice, where we found excellent opportunity to examine closely the red limestone through which the clough has cut its way down.

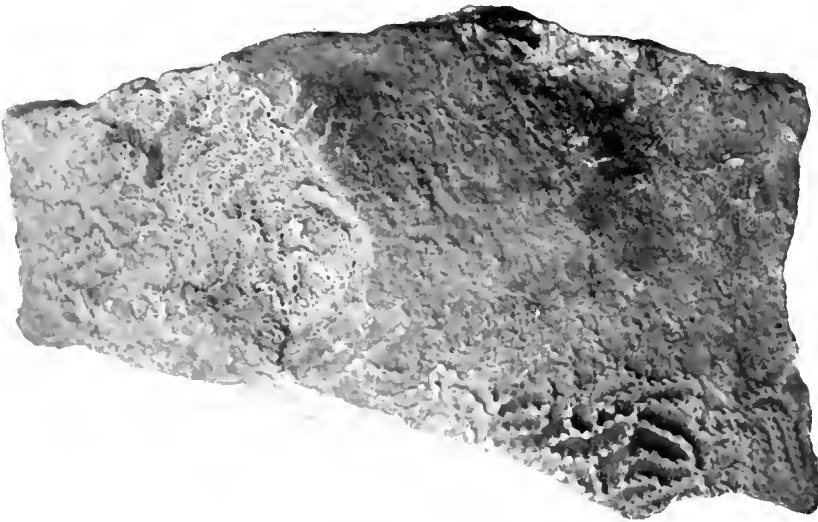
One may walk for a long time without discovering fossils, and we may say that these strata are, on the whole, poor in animal remains; but suddenly one comes across a layer so rich in fossils that they literally make up the entire layer. They consist almost solely of large thick-shelled brachiopods. We found such a layer in the Devil's Cleft; at one time this must have been a place situated at the bottom of the ocean where animal life has been as rich



FOSSILIZED ORTOCERATITE FROM WASHINGTON LAND



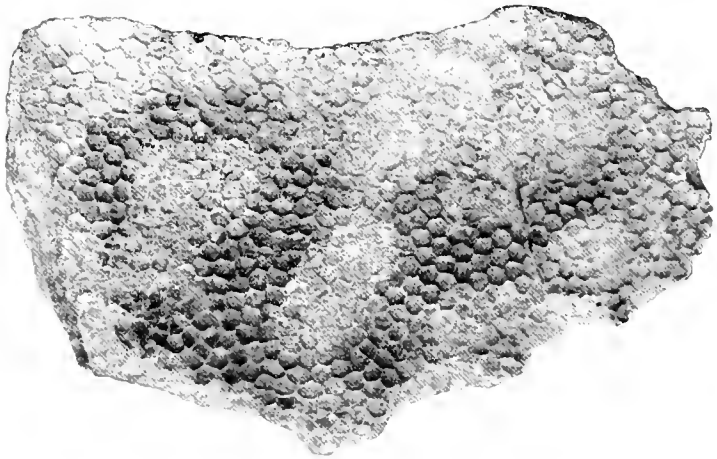
TRILOBITE AND BRACHIOPOD FROM WARMING LAND



CORAL FROM WASHINGTON LAND



TRILOBITE AND BRACHIOPOD FROM WARMING LAND



CORAL FROM WASHINGTON LAND

## GEOLOGICAL OBSERVATIONS

as on an oyster-bed. Now the limestone is absolutely barren, no plant can find nourishment in its cracks, no sign of animal life was to be discovered, and one finds oneself wondering why the inland-ice, which from both sides sends its glaciers right to the edge, does not fling down its masses of ice, filling up the clough.

When these layers were formed there must have been variable conditions at the bottom of the sea. The orthoceratites did not live here whilst the red limestone was deposited, and only in occasional places did favourable conditions for animal life exist; but this animal life was then very rich, though it soon died out again and was covered by a stratum void of fossils.

The upper layers of this limestone, however, point to somewhat different conditions. Between the brachiopods occasional corals are found, becoming increasingly numerous upwards at the same time as the large, thick-shelled brachiopods become rarer; ultimately one sees no more of them, the rock becomes bluish-grey, and the corals dominate.

The succeeding layers are remarkable for their great wealth of animal life. They are especially easy to find in Washington Land. Now one stands on almost a coral reef, now the many-armed crinoidea put their stamp on the stones, and in between the branches of the corals lie remains of innumerable other organisms. The crustacea are represented by trilobites, by octopus, by orthoceratites; further, there are brachiopods, mussels, snails, bryozoa, and fungi. The corals are present in many varieties; some are cup-formed, others are sausage-shaped or ball-shaped, others, again, are flat or look like a plate.

But the period of the corals also comes to an end. The bluish-grey layers with the beautiful branches of coral suddenly stop, and are succeeded by black strata of schist, in which at the first glance no animal remains can be seen; these layers look very much like slate-stone. But if one examines them closely one will find some peculiar shapes which look as if they had been traced on the slate with varnish. Now they are small, saw-toothed sticks, now they are rolled up and have long radiate beams on the outer side; they are the so-called graptolites, an animal group long ago extinct, which does not appear to have any near kindred amongst now existing animal forms.

The black schists are very thin; towards the top they become richer in lime and at the same time the trilobites again appear; but they are chiefly of forms different to those in the coral limestone, and the same holds good for the brachiopods and the orthoceratites. They are mainly small, but of many varieties, and it is as if animal life for the last time flares up before it disappears. If one follows the succession of layers upwards, the slaty limestone rather abruptly becomes mixed with sand, and then merges into pure coarse sandstone without fossils.

This sandstone crumbles easily, wherefore landscapes consisting of this stone appear in the shape of low plains with rounded forms. A whole series of low districts are therefore to be found to the north of the large fossiliferous plateaux right from Hall Basin and almost to Peary Land.

With this the North Greenlandic series is finished. All the fossiliferous strata belong to the Silurian Period. The coarse sandstone shows that the sea again becomes shallow, and one gets the explanation of this if one turns towards the north, where the plains are bordered by an enormous mountain chain.

All the layers deposited in the sea, right from the red sandstone, the dark brown and the reddish-grey limestone, to the coral lime, the black schist, the

## GREENLAND BY THE POLAR SEA

slaty limestone, and finally the sandstone, appeared as almost horizontal strata, which sloped only faintly towards the north-west. No violent catastrophes of nature have, in the course of time, altered their original stratification; they lie to this day as they were formed on the bottom of the ocean in olden times. Therefore the landscapes in these regions are very monotonous. The colour and the height of the rocks may vary, but the steep coastal mountains, which at their tops form flat plateaux, are a feature repeated again and again in these regions.

If one turns one's eyes to the north, towards the mountain chain, one sees even at a distance that the landscape is quite a different one. The plateaux are succeeded by a wild Alpine country. The flat glaciers, which in appearance resemble the inland-ice, have disappeared, and the country is almost free of ice; only occasionally is a quite small glacier hidden away in some narrow valley.

A glance at the map shows that all the north coast of Greenland is formed by this mountain chain. It runs, however, not at all as a continuous ridge along the coast. In reality there are many ridges between which valleys and fjords cut in; further, the mountains are penetrated again and again by fjords and sounds, so that now only the remains are left of a once much more enormous mountain chain. Especially in the fjords, which cut across the line of mountains, there is a good opportunity to examine what the inside of a mountain chain like this looks like. The inland-ice, which during the Ice Period sent its glaciers out through these fjords, has polished the coastal mountains, which now stand without vegetation as long profiles in which one can see exceedingly clearly how the strata lie.

One sees at once that the mountain chain has arisen by the layers, which were once horizontal, being pushed up into enormous folds by pressure from the sides. In the southern part of the mountain chain one can see how the coarse sandstone, which on the plains lies horizontally, gradually assumes a more wavelike surface, finally merging into the great folds of the central section of the mountain chain. Upon closer examination one will probably also find the fossiliferous layers pressed up, as these must be assumed to stretch out beneath the sandstone under the surface of the sea. These pressed and folded strata have been subjected to such an enormous pressure that they are to a greater or smaller degree transformed and difficult to recognize, especially as nearly all the fossils presumably have been crushed during the folding.

In some places the layers bend and wind so strongly that they resemble the entrails of an animal; in other places a mountain may consist of one single or a couple of huge folds. The peculiar fact is then observed that that which was once a valley is now a mountain-top, and a place where long ago a mountain towered up has now turned into a valley. The explanation is very simple. When a stratum is pushed upward, in this case when it forms a mountain-top, the upper layers of the top will, as it were, be torn apart, and thereby lose a great deal of their power of resistance. The opposite takes place when a layer, originally horizontal, is pushed down, forming a valley. In the hollow the layers will be pressed together, thereby adding to their power of resistance, so that the bottom of the valley will become hard. When a newly formed mountain chain like this begins to disintegrate, the tops will quickly crumble, first becoming level, then turning into valleys, whilst the original valleys, with their bottoms consisting of hard rock, will remain as mountain-tops. When from a high mountain one stands looking across nearly 2,000



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metres high cliffs, which were originally the bottoms of large valleys, and in imagination attempts to reconstruct the original mountain-tops which have now disappeared, one understands what enormous periods of time must have elapsed before this transformation was finished. However, it is only very old mountain chains which look like these.

When one considers these conditions it is easier to understand why the mountain chain is penetrated both lengthwise and crosswise by fjords and sounds. In reality all the islands along Greenland's north coast are fragments of a folded chain which was once far mightier.

It would be in vain to attempt to fix in years the age of this mountain chain; there is no means whereby one could measure the time which has elapsed since then. But it is not difficult to decide the relative age of the folding. The statements we have already made will have made it clear that the mountain chain must be younger than the coarse sandstone, which to the south had a horizontal position, and consequently must have been deposited before the folding commenced. The sandstone, which was superincumbent on the slaty limestone and the black schist with the graptolites, must therefore be younger than these strata, and this gives us a point on which to fix. From other regions of the earth we know that the graptolites found in the slaty limestone lived in the very earliest part of the Silurian Period. Consequently the coarse sandstone must belong to the Devonian Period, and the folding must therefore be younger than the beginning of this. From a previous expedition it is known that, to the north of the folding, horizontal strata from the Devonian Period are to be found, and above them strata from the Carboniferous Period. The mountain chain must thus have arisen during the first half of the Devonian Period.

During an Arctic sledge journey, when each day brings a crowd of new impressions, there is seldom an opportunity to sit down and look at matters as a whole. One examines the landscape at a distance through field-glasses and makes a guess at what kind of rock went to the building of the districts through which one passes, and when one stops it is the fossils and the rocks which are examined closely through a magnifying-glass. One therefore returns from such a journey with a mass of details which are only gradually brought together so that the larger contours appear.

However large and beautiful the view from one of the highest tops of the folded chain may be, one is merely looking at a slight section of the whole chain, and one must therefore in imagination attempt to make a connected picture of the entire folding in order to find out whether other regions have also been subjected to this enormous catastrophe of nature.

If one follows the westward direction of the mountain chain, one finds that its continuation is a large mountain chain in Grinnell Land known from earlier times, the so-called "Albert and Victoria" mountains. Down towards Ellesmere Land the foldings gradually disappear. If this section of the folding is included, the Greenlandic mountain chain has a length of approximately 1,000 kilometres—in other words, it is as long as the Caucasus.

If the direction of the mountain chain is followed eastward we find as its continuation a submarine ridge across to Spitzbergen, and in continuation of this ridge there is on Spitzbergen a large folded chain, of the very same age as the one in Greenland. The mountain chain on Spitzbergen, however, is merely a part of a large system of folds which via Bear Island runs down to the north of Norway, and thence forms the whole of the Scandinavian mountain

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chain which continues through Scotland. This mountain chain, which is called the Caledonian Folding, has up to the present been known only east of the Atlantic Ocean, from Scotland to Spitzbergen. *The most important geological discovery of the Expedition is that it succeeded in pointing out the Greenlandic section of the Caledonian Folding to the west of the Atlantic Ocean.*

As already mentioned, the North Greenlandic series of strata ended in coarse sandstone, which during the Devonian Period was then folded up into the mountain chain. What subsequently happened is not known with certainty. Great stretches of North Greenland, and first and foremost the mountain chain, have during part of the Mesozoic Period been raised above the sea-level, and during this period the mountain chain became constantly lower; but no fossiliferous strata have been preserved, so one must fall back on hypotheses regarding the conditions. During the Tertiary Period there must certainly have been land with semitropical forests here, for remains of such are to be found on Grant Land, which lies right opposite.

Then the Ice Period came. It spread its ice masses across practically the whole of North Greenland. At any rate it brought blocks containing Silurian fossils up to some of the highest summits of the mountain chain. The inland-ice has now, especially to the west, receded about 100 kilometres, and although this stretch of time since the Ice Period is so short, in comparison to the periods already mentioned, many changes have nevertheless taken place in the North Greenlandic landscape since the Ice Period. During a certain period North Greenland was lying at least 210 metres lower than now, and large sections of the plains which now consist of the coarse sandstone were then lying under the surface of the ocean. At that time there were many more fjords and sounds on the north coast. We may state with certainty that subsequently the climate was not colder than it is now, as the glaciers have not shot out across the old sea margins which one comes across more than 200 metres inland. Right up to a height of 135 metres one finds shells of mussels from that time, all of them forms which at present exist in the same neighbourhood.

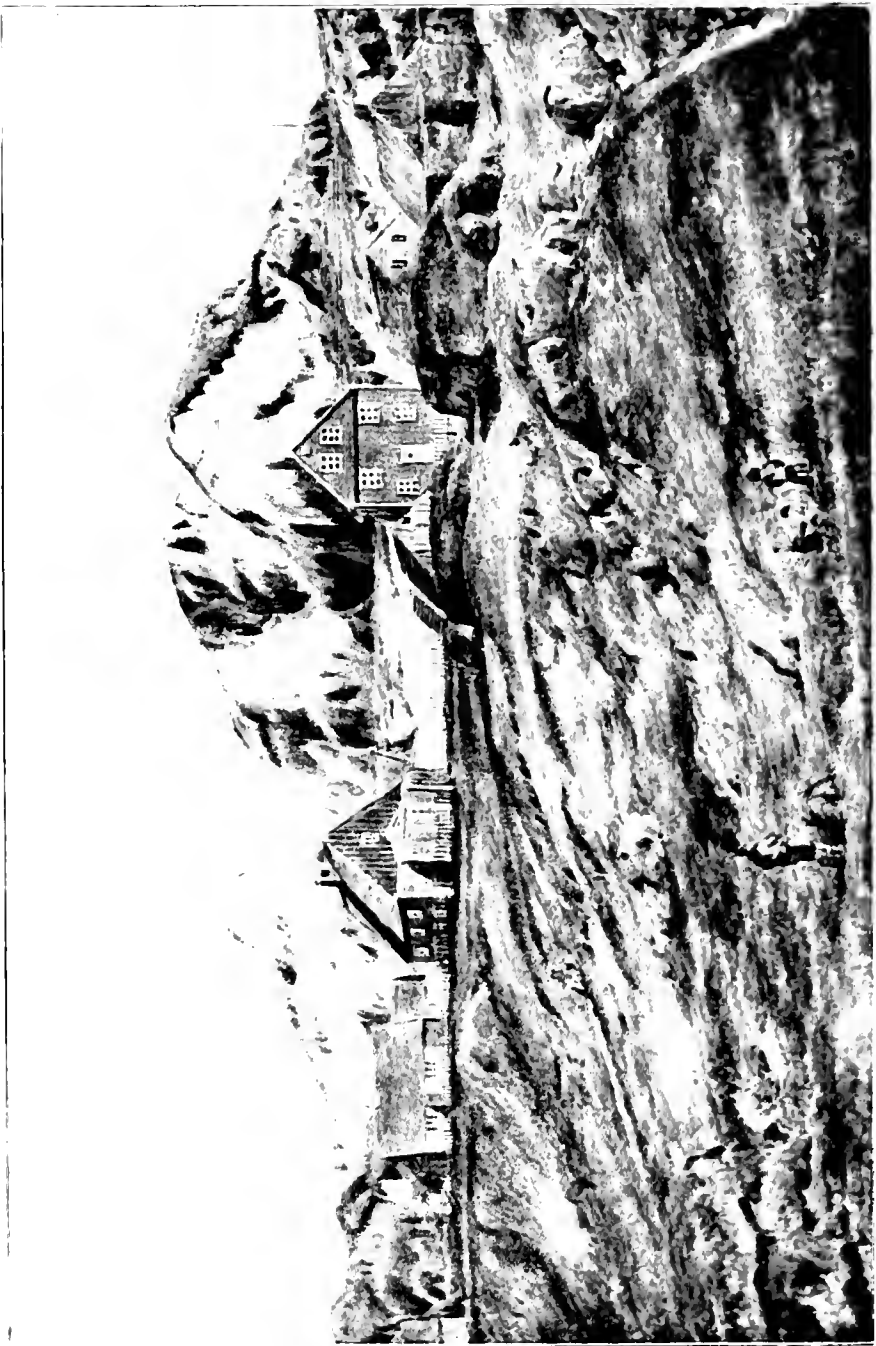
### II

This description of the development of the North Greenlandic landscape would be incomplete if one did not finally mention the youngest and one of the most powerful of the series of strata—*i.e.*, the inland-ice.

It is well known that almost the whole of North and Middle Europe during the Ice Period was covered by a connected mass of ice, which, like a shield, arched its back from Scandinavia out across the surrounding countries. This was also the case with the whole of Canada and the northern part of the United States. In Greenland the ice has remained, one is yet in the midst of the Ice Period, and a journey from the south of Greenland towards the north is like experiencing anew the coming of the Ice Period.

If the journey is commenced at Godthaab or Holstenborg there is still 100 kilometres from the coast to the inland-ice, and even from the highest coastal mountains one cannot as a rule see it. Wild, riven mountains form the landscape, and occasionally the sun is reflected in the shiny surface of a glacier, or shines on the snowdrift, which is so big that it does not melt in the short summer.

Such a snowdrift may be the beginning of an Ice Period. If a succession of years come with much precipitation or cold summers the snowdrift will grow



THE CAMP OF THE ARMY OF THE NORTH, 1861.



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bigger. The snow will be pressed into ice, the whole thing begins slowly to slip and float down a mountain-side, and there one has a glacier.

If one travels northward one comes to neighbourhoods which are nearer to the state of the Ice Period than are the districts in South Greenland. First one will see Disko Island, which, with its large lava plateaux carrying on their heights a flat glacier cap, reminds one very much of the inner regions of Iceland. To the north lies the peninsula Nûgssuaq, where in many places one might well believe oneself removed to the Alps, as innumerable long, narrow valley-glaciers shoot down from a height of nearly 2,000 metres towards some large plains in the interior of the peninsula. Finally there is the Bay of Umanaq, which is a slice of Spitzbergen magnified and beautified.

The journey from Godthaab to this point has already been a long one—as far as from Copenhagen to Switzerland—and a large edition of all Europe's glacier-world has passed in review before the traveller; and still they were all merely local glaciers independent of the inland-ice, which we have not yet seen. First in the most northerly of the Danish districts, Upernivik, one gets from the outer coast the right impression of it.

Once it was all merely a snowdrift which did not melt during a cold summer; then it was a small glacier which lay hidden in a valley—a glacier which grew, spread out, and filled the valley, merged into other glaciers, reached the ocean, and put great icebergs into the water. And the glacier increased constantly; the low land was quite hidden, as were also the low mountains. The ice grew up round the highest summits of the mountains, the Ice Period had set in, all land had disappeared, and the perfectly even surface of the ice did not show a trace of the mountains and the valleys which it covered.

Thus the Ice Period arose, and the journey from Upernivik to Melville Bay represents the last chapters of this history. The land in front of the ice becomes increasingly narrow; every valley is filled with ice. Large glaciers shoot out between and across islands and skerries; near the Devil's Thumb the coast consists as much of ice as of land, and north of this point only occasional small islands or nunataks push up. For miles the coast is one continuous wall of ice.

If one travels by sledge one may find that the ocean-ice by Cape York is broken; one must then travel for about 100 kilometres across the inland-ice before one reaches Thule.

Only the man who has travelled for weeks day after day along the inland-ice without seeing land can rightly appreciate the nature of the Ice Period. The first thing which impresses one is the enormous dimensions with which one must reckon. The landscapes, which with their big fjords and huge mountains seemed so large from the sea, now lie far beneath the spectator as narrow rims of land, quickly disappearing to give room for a perfectly even snow-plain. A journey across this from north to south would be as long as from Copenhagen to the Sahara, and during this journey the landscape would not alter for a single instant. Nowhere would one see land; infinite as the sea lies this snow-field, and life is represented neither by animal nor plant. Even the Sahara has its oases between which men and animals move about; but here is nothing but snow—this is the region on earth most inimical to life.

In the central parts of Greenland it never rains, as the temperature there is permanently below minus 20° C., but it is not yet quite clear in which seasons the snow falls here. All information points to the probability that

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a tract exists there where wind is rare; the snow is very loose. But such an enormous surface of snow will, of course, lower the temperature of the air. It thus becomes heavier; it sinks and presses from the centre across the ice in all directions. Consequently, at the edge of the inland-ice, there is nearly always a wind from Central Greenland.

The edge of the inland-ice varies very much. If the ice covers an uneven Alpine landscape one will find in the border zone hills and valleys, with streams and lakes on the surface of the ice. Occasionally a mountain-ridge or a valley may be followed for many kilometres into the inland-ice. In such places, where the underlying ground is uneven, or where the ice is in strong motion, the ill-famed crevasses arise; these, then, are only met with near the edge of the inland-ice.

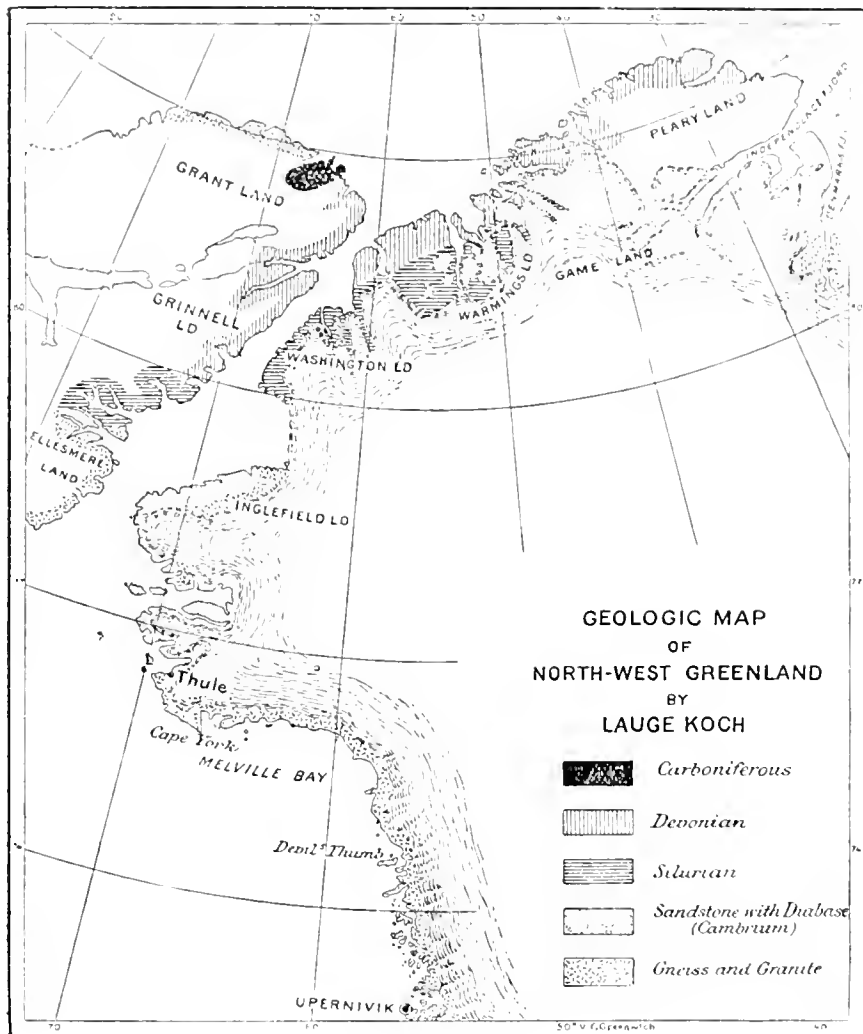
If the land in front of and beneath the ice is flat, the surface will, as a rule, be even and free of crevasses. This is the case in the most northerly parts of Greenland.

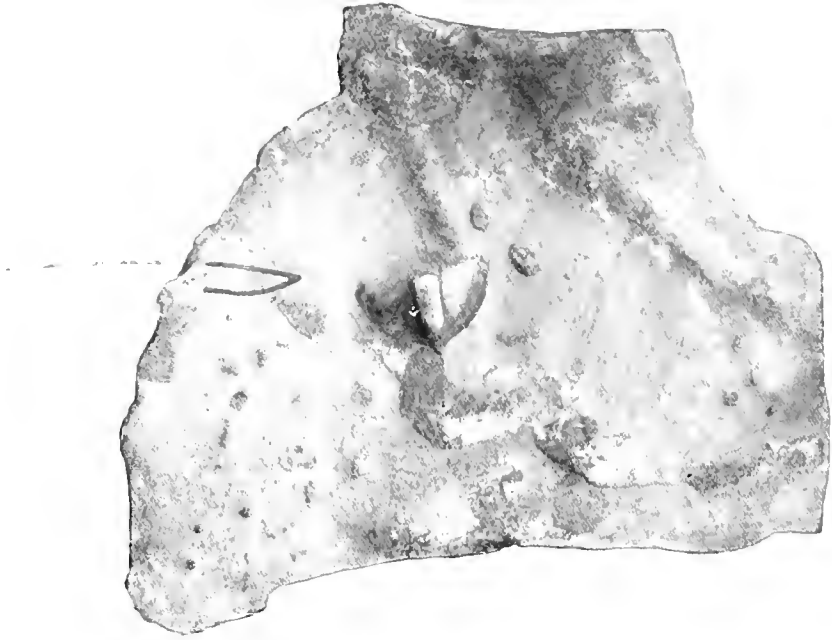
It has already been mentioned that the inland-ice consists of glaciers which have merged into each other; nearly all of them shoot out towards the sea, where they form icebergs when greater or bigger blocks are thrown off and float away. The lower layers of such a glacier are often mixed with soil and stones, which it has ploughed up into itself on its way across the underlying ground. It is well known that all the soil of Denmark has been carried down from Scandinavia by the inland-ice—a pretty example of the quantities which the inland-ice is able to carry with it.

When a glacier reaches the sea, greater or larger icebergs will, as already mentioned, be set free and float away. In several places of Southern Greenland this may take place unhampered, as the sea in front of the glacier is never covered by ice. But in Northern Greenland the fjords and parts of the ocean are covered every winter, and this prevents the icebergs from floating away from the glacier. Certain particularly strong and large glaciers, as, for instance, the ice stream of Jakobshavn, are, however, all through the winter capable of bursting the ice cover; but these are exceptions, and as a rule there are towards the spring in North Greenland a closely packed mass of ice blocks collected in front of the glacier; these float away when the ocean-ice in front of them melts. The further north one goes the longer the ocean-ice remains lying, and the broader is, consequently, the belt of icebergs in front of the glacier.

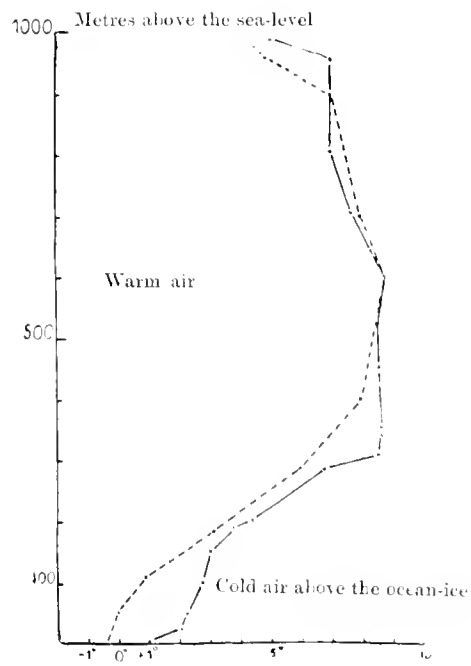
In the fjord north of Thule the ocean-ice lies from October to July, and the great Moltke Glacier by the head of Wolstenholme Fjord has, in the spring, a belt of closely packed ice in front of it, which may be a couple of kilometres broad. When the ocean-ice drifts away in the beginning of July, the glacier-ice is so firmly packed together that it remains lying, and not until the early part of August does the ice split with a mighty roar, and the whole fjord is covered with pieces of ice.

On the north coast of Greenland the ocean-ice does not drift out from the fjords; thus the icebergs are also unable to float away, wherefore, as a rule, one meets with them here. The belt of icebergs in front of the glacier remains lying over the summer; it becomes constantly more firmly pressed together; at the top it melts to the same degree as does the glacier mass behind it, and finally it is no longer a collection of loose pieces of ice, but one huge block, which increasingly broadens and is connected with the glacier behind; in other words, it has become the foremost floating part of the glacier,





TAIL SHELL OF A TRILOBITE FROM WASHINGTON LAND





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and in this way arises the so-called floating inland-ice, which, in the Northern Hemisphere, is only known in the northern extremity of Greenland.

The surface of the ocean-ice in front of the glacier is in the course of the summer subjected to exactly the same degree of melting as the floating inland-ice, which, because of this very melting, has become ~~increasingly thinner~~ towards the point. The result is that the outermost part of the glacier-ice and the ocean-ice assume an extraordinary similarity; they merge into each other, and in certain fjords—for instance, Victoria Fjord—there is on the whole no definite line of demarcation between the ocean-ice and the glacier-ice as they merge evenly into each other.

To understand this question one must examine the conditions of summer here in the most northerly regions of the world, bounded to the south by the entire inland-ice and to the north by the permanent ice cover of the Polar Sea. In the following we will attempt to describe the climate of North Greenland and its relation to the inland-ice.

The whole of South Greenland receives sunlight by noontime of the shortest day of the year. The rays of the sun do not, however, reach to Holstenborg on that day; only on the following day does it show above the horizon, and for every succeeding day it sends its rays further northward, putting an end to the dark period. In the course of January the sun reaches the whole of Danish Greenland, with the exception of Upernivik; in the course of February it reaches the Cape York district, and not until March does it shine on the mountains of Peary Land, after a dark period of nearly four months. During the latter half of the dark period, in January and February, and also in March, the temperature has been down to about minus  $40^{\circ}$  C. the whole time. In the beginning of April the midnight sun commences, but the orbit of the sun is so flat in these latitudes during this month that its power is only slight. The air is warmed up to about minus  $23^{\circ}$  C., but by the 1st of May the land still lies in its winter state. In the middle of May the first sign of spring is apparent, as snow-flakes lying on stones which turn towards the sun evaporate, and occasionally even a drop of water may be observed. A puff of wind, and it is forthwith once more turned into ice; but a moment after it reappears, and the patch of snow on the stone has become slightly smaller. In the beginning this melting and evaporation take place to a very small extent, but by the middle of May the development becomes more rapid. By noon the sun shines brilliantly on the mountains, which are still entirely covered with snow; during the afternoon a fog is formed round the highest summits, spreading more and more; in the evening it has become thick, and a fine layer of snow crystals falls on ice and land. This is part of the snow which evaporated at noon. The next day the sun again gains in strength; on the mountain-side, where its rays fall almost vertically, it makes light work of the loose snow crystals which have fallen during the night; they evaporate rapidly, and the evaporation of the firmer snow masses then continues.

The sun, however, has hardly any power on the horizontal ocean-ice; its position is so low that the rays fall obliquely, wherefore the snow crystals which fell during the night remain lying and do not evaporate. So in the month of May one may see snow-bare patches on land becoming increasingly larger, at the same time as sledge tracks on the ocean-ice slowly but surely are snowed under. In this way quite considerable quantities of snow are transferred from the land to the ocean-ice. Naturally, during this period fogs

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are very frequent; during our journey we had only five quite clear days out of the four weeks about the 1st of June.

The whole of this development has taken place under a temperature of between minus  $10^{\circ}$  C. and zero. Simultaneously as the temperature becomes positive, about the middle of June, the fog ceases, as the snow is no longer transformed into steam, but begins to flow down the mountain-sides as water. The first running water was observed on the 15th of June, and with that the spring thaw on land had set in earnest.

But the ocean-ice still remains in its winter state, covered by a thick layer of loose snow. During the first days of thaw this snow falls together, becoming firm and hard, and by Midsummer Day one may still find firm winter going for the sledges on the sea.

The air becomes increasingly warmer and about the 1st of July the thawing of the ocean-ice commences. It takes place with surprising rapidity. In the morning the snow is still rather firm, in the evening it is soft, and on the next day there is slush in all hollows; a few days later all the snow has melted, forming pools and lakes on top of the ice. The thaw on the ocean-ice is over in about a week, so that there is only a slight degree of melting in the course of a summer. The water in the lakes on the ice is, of course,  $0^{\circ}$  C., and the low sun is only able to melt the snow where it shines directly on it. As we all know, a certain amount of heat is used up by the melting process, so that the air immediately above the ice becomes cooler; this cooling is occasionally so great that a thin layer of ice is formed on the lakes. It is obvious that it cannot be any melting on a large scale which takes place during July and the first half of August on the ocean-ice. In the latter half of August the melting stops, the lakes are again covered with ice, and already by the middle of September they are frozen to the bottom.

Such is the summer on the ocean-ice and along the coast; but if one goes up into the mountains on land one soon discovers that the development is quite different there. The first thing one observes is the drought which prevails; large stretches lie absolutely dried up, and one notices at once that nearly all the snow has evaporated while the temperature was yet below zero. This will be understood more easily if one takes into consideration that the downfall is only one-sixth of the downfall in Denmark. Water running along the ground, which is so common further towards the south, is almost absent here. It is only under the glaciers and the snowdrifts that one finds water, and in these places is vegetation.

It is also quickly noticed that in July it becomes warmer as one ascends from the coast. In order to examine this peculiar condition, it was decided that Knud Rasmussen and Wulff should take the temperature on the coast every hour for twenty-four consecutive hours, whilst I was to ascend a thousand metres high mountain, examining the warm layer of air which must evidently exist. We chose a steep coastal mountain by Dragon Point which was 990 metres. I commenced the ascent on the 18th of July—that is, at the height of summer—at six o'clock in the morning, reaching the top at eight o'clock in the evening of the same day; the descent was commenced an hour later, and I was once more down by the tent at two o'clock in the morning of the 19th of July. The diagram will show the results of the readings.

One notices at once that immediately above the ocean-ice there is a layer of cold air which, in the course of the night, is further cooled down to below zero, whilst by noon it is somewhat above plus  $3^{\circ}$  C. Above this layer of

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air, which is 250 metres thick, lies another layer which at a height of about 1,000 metres is succeeded by a cold layer of air. The middle layer has through both day and night a temperature of nearly plus  $9^{\circ}$  C. At a height of 600 metres, then, there is during the night a temperature of  $10^{\circ}$  C., and during the day it is  $6^{\circ}$  C. warmer than on the coast. During our hunting expeditions we had rich opportunities to prove that this warmer layer of air was an everyday phenomenon in the most northerly part of Greenland during July and the beginning of August. It would take us too far here to examine the reasons for the existence of this warm layer, but it is obviously of great importance to both plants and animals, and it is surely a contributory cause of the existence of such large ice-free reaches along the north coast of Greenland.

The lower cold layer of air immediately above the ocean-ice will, of course, protect this from too great a degree of melting, and as one must assume that the under side of the ocean-ice melts, it seems reasonable to deduce that this ice every year becomes thicker upward, as the downfall of the year is partly deposited as a layer of ice on top of one already existing. In exactly the same way the floating inland-ice grows, and, as we have already mentioned, there is in Victoria Fjord no line of demarcation between ocean-ice and glacier-ice. In several other fjords there is a ridge of pressed-up ice between the two types of ice, as the glacier-ice presses forward against the immovable ocean-ice; but the surface of the ice on both sides of the ridge is perfectly even. The thickness of the ocean-ice may be put at approximately 5 metres, whilst the floating inland-ice may be 30 metres or more, especially some distance behind the edge of the glacier.

Loose pieces, consisting partly of several years of ocean-ice, partly of floating inland-ice, will occasionally drift out from the fjords through channels and lanes or, on rare occasions, when the fjord is ice-free. They may be found in the Polar basin north of Greenland, and are especially common in Robeson Channel. Nares Expedition called this formation "palæocrystic" ice, but not until now has it been known how it arose. The Eskimos call it "Sikûssaq"—i.e., ice which resembles the ocean-ice.

Only in the most northerly regions is the ocean itself covered by inland-ice, but wherever one travels in Greenland one feels this inland-ice as the great background of existence in these latitudes. Against this background life must be viewed, and that which in other and more favoured neighbourhoods may seem mean here, immediately before the Ice Period, becomes rich and remarkable.

## THE ROUTES OF ESKIMO WANDERINGS INTO GREENLAND

### I

THE beginning of the history of the Eskimos, more than that of any other people in the world, is hidden in darkness; so far no explorer has been able to tell with certainty whence they came, and the tribes themselves veil their origin in obscure myths which give only sparse information. The only thing we do know is that, when these 40,000 people stepped into the light of history, they were spread over half of the world's Arctic periphery towards the harsh, ice-filled oceans whose coasts no one else could inhabit. On this mighty stretch of coast of more than 10,000 kilometres, where they bridged points as far apart as the East of Greenland and Alaska, the Aleutic Isles and Siberia, they have understood, as no other hunting people, the art of self-preservation, and in the midst of a merciless fight for existence they have created a culture which compels the greatest admiration of all white men.

Now, where had this people its first home?

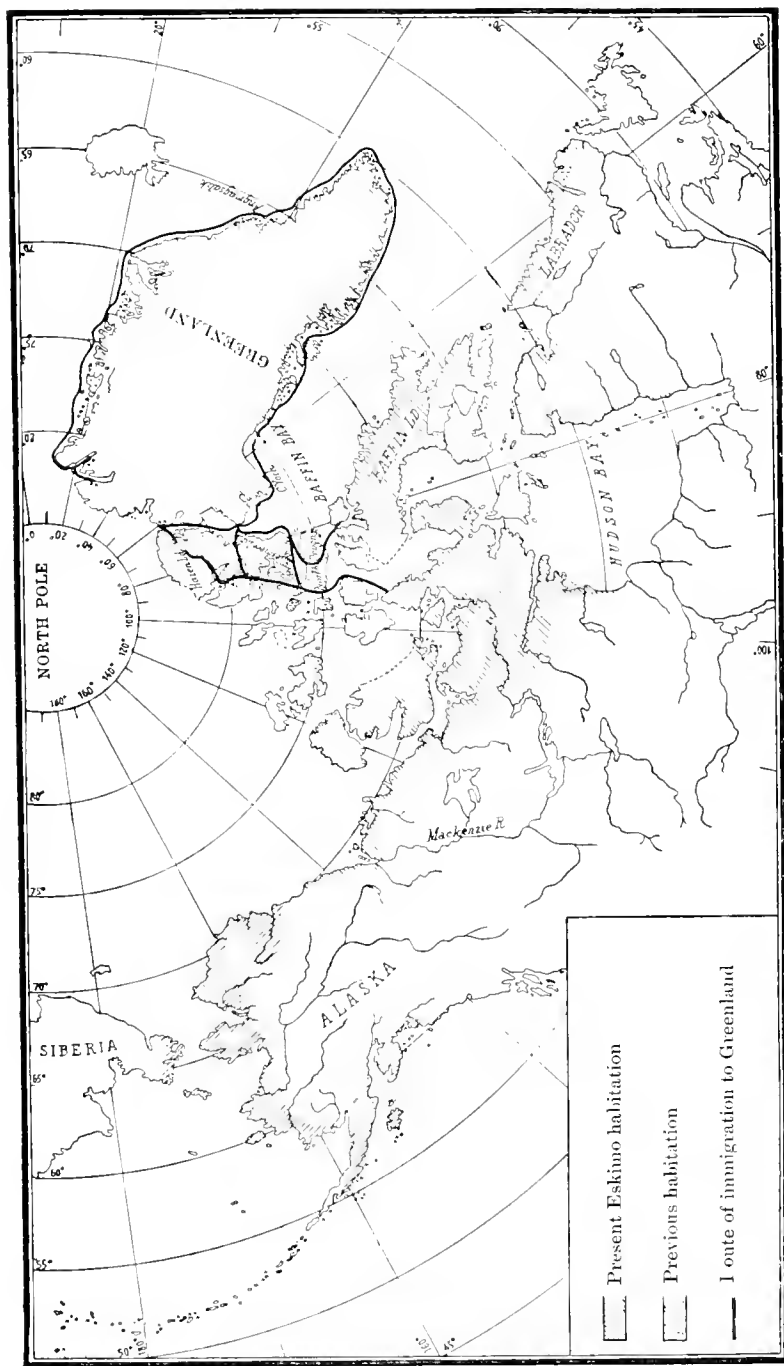
William Thalbitzer has, by a study of the oldest myths, come to the conclusion that various circumstances point to districts towards the Far West. Thalbitzer writes in his book, "Greenlandic Myths of the Past of the Eskimo," p. 80 :

"So far away from their goal, a thousand years ago or more, the wandering commenced which led to the coasts of Greenland. At that time the chief camp of the nation was by Behring Strait. There we find the original forms of the language and the culture which, later on, the wanderers towards the east continued and adapted on the coasts of David Strait. They probably arrived here in the tenth century of our reckoning, perhaps somewhat sooner, perhaps somewhat later, spreading themselves during successive centuries on one side down towards Newfoundland, to the southern border of Labrador, and on the other side across Smith Sound along the west coast of Greenland to Cape Farewell, and north of Greenland a goodly distance down along the eastern coast. The Stone Age people which the Icelandic Vikings met in the Middle Ages, and to whom they had to yield in the end, the same people which the English discoverers of the sixteenth century found again in larger numbers both on Baffin Land and in Greenland, was not a very old population on these coasts; their forebears had lived not many generations ago in the lands of the evening sun, far towards the west, by the mouths of the great rivers on both sides of the Rocky Mountains."

Another authority, Professor Steensby, is of the opinion that once they were a North American inland people with the culture of the fisherman and the hunter, whose origin must be looked for by the great lakes and rivers which have the Rocky Mountains to the west and Hudson Bay to the east. Pursued by inimical Indian tribes, they have slowly withdrawn towards the



BIRD'S-EYE VIEW OF THE GREAT FJORDS ON THE NORTH COAST OF GREENLAND



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Arctic coasts, and here they accommodated themselves to an existence which, at the outset, permitted an adaptation of their experiences from lakes and rivers to the sea-hunting which subsequently through the centuries developed them into a people whose purely technical culture and ability to support themselves within their own territories is unique among men.

Since they arrived at the sea the Eskimos, according to Steensby's theories, have spread both towards the west and the east, so that, as we have already mentioned, we find their western border on the Aleutic Isles and East Cape in Siberia, whilst to the east we meet them on the east coast of Greenland. In the survey which we will here give to illustrate the ethnographical results of the expedition, we will, however, consider merely their wanderings towards the east.

Now, what was the reason for all these wanderings?

Why have the Eskimos never been able to gather in larger colonies, similarly to other people, and seek aid in the fight for existence in the security attendant on great numbers herding together? Where a whole people is concerned it is not a sufficient explanation to point to the native restlessness of the hunter, which forces him to examine the coasts of the lands and work his way towards unknown hunting-grounds. When the Eskimos spread out so widely across the world it was simply because their means of existence, and the number of animals to be caught, demanded that they must fly away from each other. It took a large stretch of ground to provide the single individual with the necessities of life; the fewer the hunters the better were the chances, so they migrated eastward and westward along the coasts in little flocks, as long as they were not stopped by purely geographical conditions.

It is generally stated and insisted upon that the Eskimos on their wanderings towards Greenland have followed the tracks of the musk-ox and reindeer. I wish to emphasize that it may be taken for granted that, after the Eskimos discovered the ocean and its great sources of riches, they were only interested in the coasts where the movements of the aquatic animals gave rise to conditions preferable to those offered by the fish of the lakes and the game of the land. For this reason they have for many generations concentrated on inventions which facilitated the catching of food from the sea. The land game often gave an opportunity for great hunting expeditions which resulted in considerable amounts of supplementary provisions, but they were always looked upon as a subsidiary means of existence. If on their way the Eskimos happened to come across large herds of musk-ox and reindeer, these might occasionally be the deciding factor for the wintering camps, but otherwise the sea route, and the advantages or the difficulties which it offered, must have been the sole determinant for their journeys. In the following we will show more clearly what is the cause of the seals being so closely bound up with the Eskimos' life.

The high Arctic coasts demand to a greater degree than any other regions a highly developed winter culture. Cold and darkness must be overcome through long and pinched months when there is often no possibility of hunting, and for this period food must be put aside during the more favourable times; with the food—seal meat—follows blubber, which makes the huts as warm as summer for women and children. Cold houses are regarded as being more dreadful than anything else.

To begin with the food, it is necessary to point out at once the way in

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which the Eskimo differentiates between the flesh of land animals and the flesh of seal or whale. The flesh of musk-ox and reindeer is considered not durable, especially when it must be shared with the dogs. Further, as the only article of food it is not always sufficiently rich in fat for this cold climate, where the consumption of much fat means bodily heat. For this reason it has always been looked upon as a supplementary food, which should preferably be eaten together with stronger and fatter meats.

The second factor in Eskimo life, and one which is no less important, is the artificial heat required in order that one may live and thrive; for it must not be forgotten that the Eskimos spend half their life indoors with everything indispensable collected round the train-oil lamp. This lamp is the sun of the family, and the only light during the period of Polar darkness. With its mild warmth it makes even the smallest hut cosy, and over its flickering flame are cooked all the meals, round which the Eskimos gather as for a feast. Clothes and kamiks, which protect them against the cold, are dried by it, and on the whole it makes it definitely possible for women and children to hibernate comfortably through the harshest part of winter.

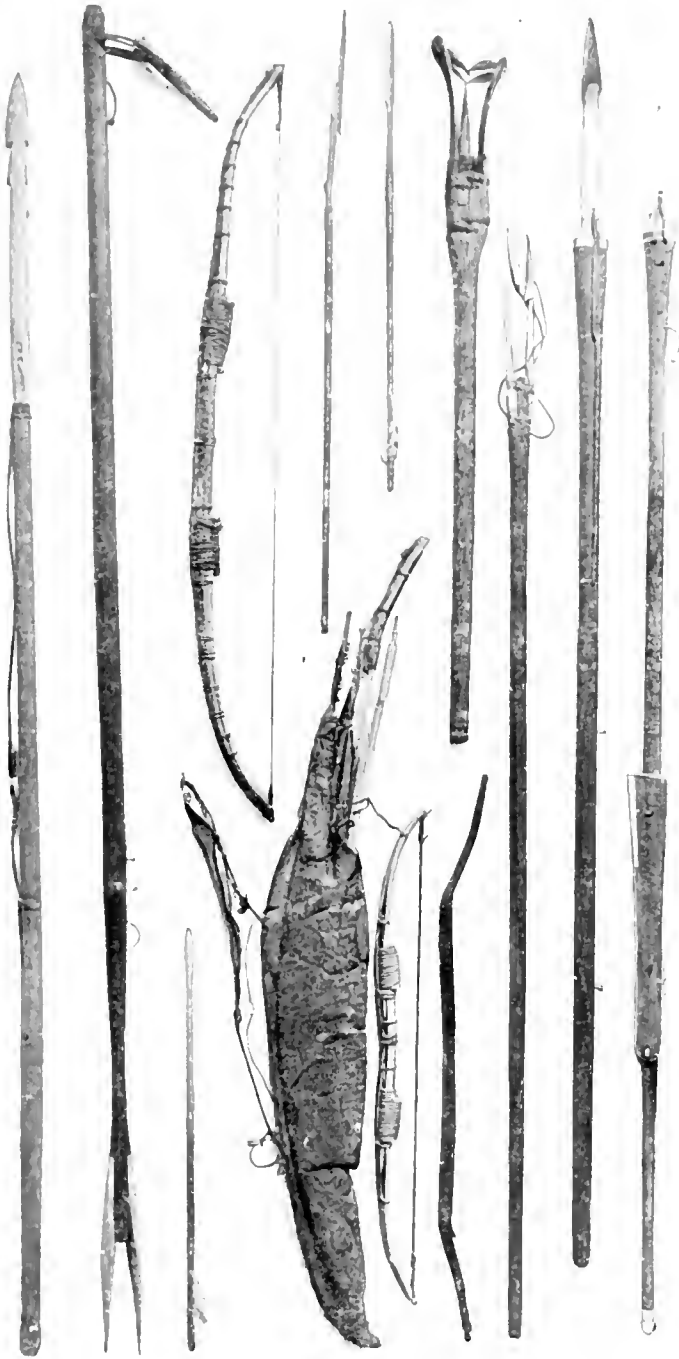
It is, of course, possible to obtain fat from reindeer and musk-ox both for light and warmth in a hut. But it is far from being the same heat, and it also causes much more trouble. In addition to this, the lamps of a house demand such a large supply of fat, as they, according to custom, must burn both night and day, that an extremely great number of animals would have to be killed before one would be in a position to meet the winter calmly. And it is only during the autumn and the early part of winter that the animals are fat. Even after the most fortunate hunting excursions it is difficult to obtain sufficient fat to supply both men and lamps.

All these purely practical view-points, which play such an important part in their daily life, have been given to me by old Eskimos who have themselves taken part in folk wanderings, and they seem to demonstrate that an Eskimo, when once he is used to the flesh of aquatic animals and blubber, reluctantly substitutes anything else for it. This alone satiates his appetite and enables him to convert a stone hut into a patch of summer amidst the Polar frost. And one must remember that the Eskimos are people who appreciate a good time, and that the cause of their journeys is chiefly a desire to come to a place where conditions are better than those which they enjoy at the moment.

When we assume the correctness of Professor Steensby's theory, that the Eskimo culture as we know it has arisen round Coronation Bay, we can follow a line of wandering towards the east which runs southward from Baffin Land, and then via Labrador's coast goes almost right down to Newfoundland. Everywhere on these stretches the catch of marine animals has been decisive for all travelling dispositions. Another direction of migration goes north to Lancaster Sound and North Devon, where, by Jones Sound, it divides into two routes, some of the Eskimos going eastward and some of them westward round Ellesmere Land. By constant and successful hunting of seal and bear, the former have comparatively quickly reached Pim Island, and the subsequent crossing to Greenland is obvious—for to the north lie trackless districts with pressure-ice, whilst at this point, where Smith's Sound is at its narrowest, one may cross on easy ice to a large and promising land.

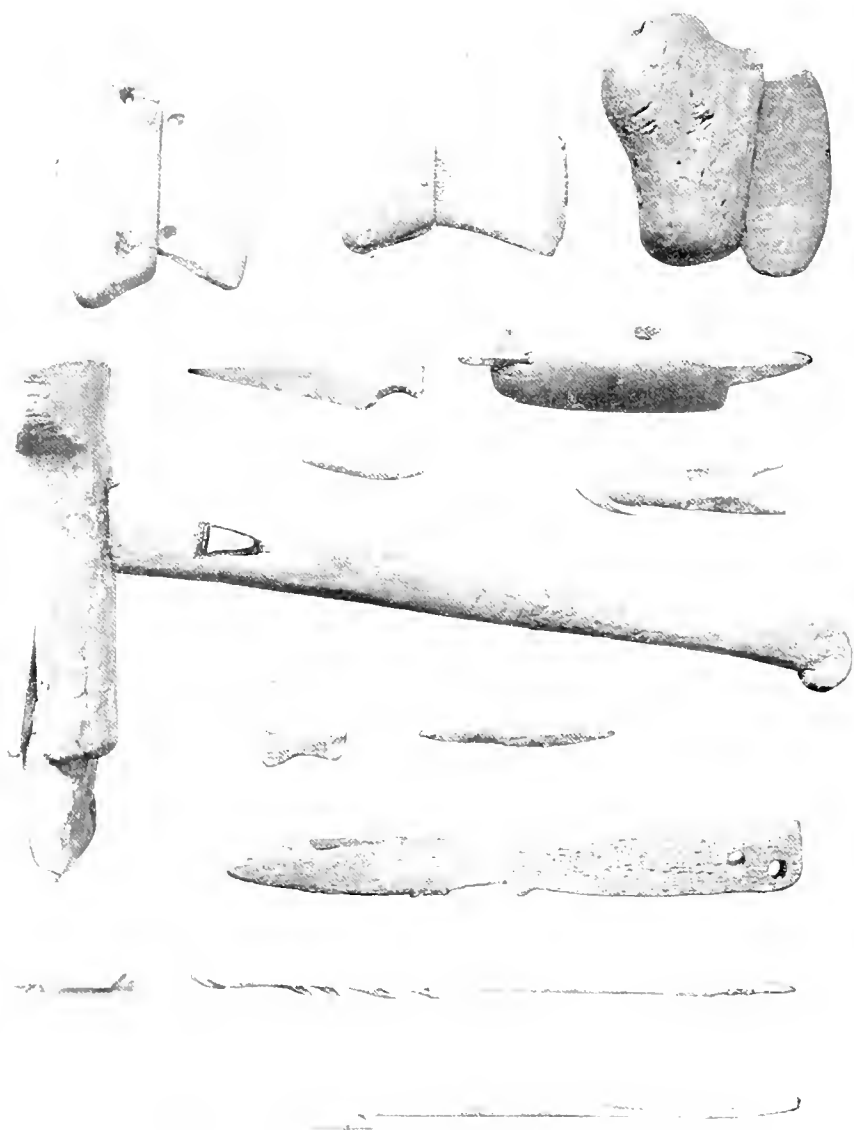
This route was used by Baffinlanders who immigrated into Etah in 1862 under the great Qidtdlaq. The same route southward was taken when the





#### ESKIMO HUNTING IMPLEMENTS

From left to right: Harpoon with bone-point. Winged harpoon.  
 Bow with arrows and quiver. Salmon spear with fixed barbs.  
 Salmon-spear with detachable point attached to a seal-strap.  
 Lances. Harpoon with throwing-stick.



#### ESKIMO IMPLEMENTS

From the top: Skin-scrapers, stone edge with handle of bone. Point of flint for harpoon. Harpoon-points of bone with edge of flint. Axe, wooden handle, point of flint. Scraper of flint and arrowhead. Kayak-knife for ice, made of bone. Arrow-head with edge of flint. Arrow-head of bone.

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tribe, after six years' sojourn in Greenland, attempted to return. Somewhat later, the Polar Eskimos undertook a wandering along this route, and wintered for a couple of years on Coburg Island by the mouth of Jones Sound.

The first immigrants to Greenland reached the land by Cape Inglefield, and thence they spread out both north and south. The parties which chose the routes to the south soon found excellent hunting-ground in Melville Bay, and further ahead in other parts of Greenland; whilst those who went to the north from Cape Inglefield gradually settled down in large colonies along Inglefield Land and Peabody Bay. Excellent conditions were found everywhere here, whilst the excursions which the hunters undertook to the north comparatively soon proved that there was no possibility of expansion northward through the narrow channels, where the ice was a chaos of pressure-ridges, and where the seals consequently were found only in small numbers. The land itself was covered by glaciers and had no ground for game, and at the same time the geological formations, limestone and sandstone, provided uncommonly poor material for the building of houses.

Thus for many generations the Eskimos presumably flocked together in this neighbourhood, comparatively small, but fit for habitation, and this explains why we found such an unusually large number of winter-houses on the stretch between Cape Inglefield to Humboldt's Glacier. As gradually they began to suffer from the consequences of over-population, they decided to follow those which constantly passed southward towards the much more promising coasts where seals and whales abounded.

The Polar Eskimos have a distant recollection of a time when all countries were inhabited. People increased until they did not appreciate each other and found that neighbours were a nuisance. Although one must be very careful in making history from the old myths, it is nevertheless probable that the account of the great blood bath round Marshall Bay alludes to a period when the district here was subjected to a blood-letting which overtook the people because they were too numerous.

We now return to the tribes which went along the west coast of Ellesmere Land, and which are of especial interest to us when we discuss a route of migration north of Greenland. For a while they must have felt comfortable in the peculiar and ice-free tracts in Ellesmere Land, Grinnell Land, Grant Land, and Heiberg Land, where existed and still exists great profusion of game. But the sealing possible in the narrow sounds, where the ice often did not break at all, was far from satisfactory, and the longing for the sea therefore led to a speedy departure. Some of the Eskimos went into the land through Bay Fjord, and found a convenient crossing over Ellesmere Land down to Flagler Fjord, from which the passage to Greenland takes merely a couple of days. Others penetrated to Lake Hazen through Greely Fjord, and the abundance of salmon in the lake and the large flocks of musk-ox and hares have for a while made them give up the thought of pushing further ahead. At that time not a few winter-houses were built; these were found in this neighbourhood by Greely's Expedition. The way from Lake Hazen down to the sea by Lady Franklin Bay and Hall Basin is very easy to find, as great cloughs and rivers run down from the lake. In bays and creeks in the near vicinity of the coast there is rather good hunting of bearded seal, famous for its thick layer of blubber and its strong skin. The hunters by Lake Hazen have probably, as did the Eskimos who lived here during Peary's expeditions,

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gone down to the sea to hunt every spring; thus we find them as neighbours to Greenland. Before we had a thorough knowledge of Greenland's north coast, it seemed convenient to let these people continue from the tent-rings by Thank God Harbour further north along the coast, and thus arose the idea of the invasion of the east coast via the north of the country. In the following we will refute this opinion, and show that such could not have been the case. For the Grantlanders, stopped by natural conditions, have either gone southward on the ocean to Inglefield Land, which could easily be reached in the course of a couple of months in the spring, even if we allow for a family removal; or they have gone behind the lands down to the route which their kindred found across Ellesmere Land.

### II

When we went to the great fjords on the north coast on the second Thule Expedition it was natural that we should harbour great ethnographical expectations with regard to these tracts, as the possibility of a previous habitation and a folk-wandering connected with it could only be decided by an examination of these regions. The majority of explorers presupposed an earlier habitation. Nearly all theories inclined to the view that the migration into Greenland has taken place not merely from Ellesmere Land via Cape Inglefield, both southward and northward, but also that a wandering has taken place north of Greenland to the east coast, and that this invasion has received its main contingent from those who came down to the coasts by the route Greely Fjord to Lake Hazen.

Without special knowledge of Greenland's north coast, it seemed natural to draw these conclusions, because Eskimo tent-rings had been found as high up on the east coast as the north side of Independence Fjord, both by the *Danmark* Expedition and by the first Thule Expedition. Winter-houses on the east side were found as far up as Sophus Müller Point, and now the problem was to find the connection with these by winter-houses or at least by traces of a wandering along the north coast.

It will be remembered from the travelling description that, although we followed the coast, everywhere bugging the land, and even occasionally went right up on the ice-foot, we did not succeed in finding the faintest trace of a previous habitation, this despite the fact that we and our four Greenlanders incessantly had our attention directed to this problem. Even in Sherard Osborne Fjord and Victoria Fjord nothing was found, however often we traversed on our hunting excursions, both on the upward and the downward journey, all the land which was accessible. Even a place like the Whirlpool in I. P. Koch Fjord, a natural sealing centre, had never been visited until we discovered it.

As a result of my experiences from this expedition I must insist that no Eskimo wandering can have taken place north of Greenland, and I will attempt to advance my arguments on this point.

During a folk-wandering where women and children are included the wanderers would never voluntarily go into quite trackless districts. The pressure-ice from Polaris Promontory to Sherard Osborne Fjord would constitute quite a considerable obstacle for the transport of a family and household goods; and we must of necessity take into account the primitive travelling gear which was used. The sledges were made entirely from whale rib or from pieces of wood



GREENLANDERS FROM THE MIDDLE OF THE SEVENTEENTH CENTURY

After a contemporary picture in the National Museum, Copenhagen



UPHILL



ESKIMO STONE HUTS IN SPRING

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patched together; they were small and always very fragile, for the Eskimos lacked the tools for proper workmanship. On these sledges were transported, during the great camp-breakings, stone pans, lamps, and skin tents, all of which were heavy and unwieldy articles; further, a kayak, if a man possessed one, the spare clothes of the family, and whatever else they might own of tools and things which could not be replaced in a hurry. Even if all these articles represented merely the most modest idea of what a household would reckon as its property and worldly possessions, they were nevertheless difficult to transport and demanded proper roads. Those of the children who were too small to walk were strapped like phantastic bundles of skins on top of the loads, and as, during long removals, out of consideration for the food, often only a few dogs were kept, the adults had, as a rule, to assist in the pulling and pushing of the sledges. It is easy to understand that for such a transport a reasonably good condition of the ground would be necessary.

As a rule the removals took place during the months of April and May; there was then warm sunshine, and the children, who must always be considered, suffered less from bad weather. During this season, when the seals begin to crawl up on the ice, there were also better prospects for hunting on the way if the game did not yield sufficient daily food. One must remember that no provisions could be brought, apart from a few meals, so that all food for men and dogs must be acquired on the way. During summer and autumn no travelling was undertaken in high Arctic regions like those we are now considering. In the summer no road was to be found, and in the autumn it would be unjustifiable to set out towards unknown districts with winter and darkness before one and no depots to fall back on. These depots, or meat-pits, on which life and welfare depended, must generally be collected during May, June, and July, these being the only months when one can reckon on a surplus. If one were in a locality where the summer and autumn catch were favourable, one might also reckon on August and September. With regard to conditions for travelling and hunting along the north coast during the months mentioned, it will be sufficient to refer to the preceding travelling description. The peculiar conditions of ice and snow forbid sealing to the extent which is necessary either for travellers with families, or for a stationary life in camp; and the ice-free inland tracts are not sufficiently extensive to yield game for wandering, not to mention for wintering, tribes. It must be taken for granted that the musk-ox has gone north of Greenland only in small and casual herds. As we found no winter-houses, tent-rings, fireplaces, or other traces of Eskimos, this negative result is entirely in accordance with the conditions for existence which nature offers.

This, then, disposes of the theory of a folk-wandering north of Greenland, for it would be unthinkable apart from winter stations by one of the fjords on the north coast. From the tent-rings by Hall's Grave, the most northerly known on Greenland's west coast, to the tent-rings by Independence Fjord, the most northerly known on Greenland's east coast, there is a distance of no less than 1,000 kilometres along the route which an Eskimo family would follow. From the houses in Benton Bay, the most northerly known on Greenland's west coast, to the winter-houses by Sophus Müller Point on the east coast, there is a distance of about 1,500 kilometres along the sledge track north of Peary Land, or a distance approximately as great as from Upernivik to Frederikshaab. An Eskimo family would never traverse such a distance in

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one journey, but must have several intermediary stations with good hunting on the way. Further, the hunters must, in order to carry on from day to day, travel under the impression that the hunting along the route they follow will be increasingly better the further they go. Our expedition, which consisted only of selected men equipped with the very best of gear and weapons of our time, barely escaped from this coast, so poor in game, this despite the fact that we visited it in the most favourable season when hunting should be at its best.

Certain writers support their defence of a folk-wandering north of Greenland by pointing out that the climatic conditions in these regions were once different, and that at that time a heat wave passed over the north of Greenland with a milder climate, which gave quite different conditions of existence than the present. If we assume that this period coincides with the post-glacial heat wave known in Scandinavia—and there are many indications of this probability—the period of the milder climate would then be some 6,000 years ago; but the Eskimo wanderings probably took place 1,000 or 1,200 years ago, so that this heat wave cannot have influenced the migrations here mentioned; when they took place conditions must have resembled those of the present time.

In addition to the obstacles on the road and the conditions of the ice, which hinder the movements of the aquatic animals, there are also other natural phenomena peculiar to the north coast which must be taken into consideration. The great fjords, St. George Fjord, Sherard Osborne Fjord, Victoria Fjord, Nordenskjöld Fjord, I. P. Koch Fjord, and the other greater and smaller incisions right up to de Long Fjord, are all filled with floating inland-ice; and through this no seal is able to work a breathing-hole.

Another circumstance which, though of less importance compared with those already mentioned, nevertheless made an impression on our Eskimo members, is the uncommonly poor material for houses which is to be found; the coast consisted mostly of loose, slaty, and easily crumbling sandstone, unsuitable for the building of stone houses. An Eskimo would scarcely settle down here voluntarily. The opinion which has occasionally been voiced to the effect that the Eskimos, during their visit to the north coast, contented themselves with only snow-huts during the winter, is improbable, and betrays a complete ignorance of natural conditions in Greenland, and of Eskimo habits. Apparently one forgets that not in all seasons of the year, not even in all places, is it possible to build snow-houses. During autumn and the first part of winter, in September, October, November, eventually also in December, one only occasionally finds snow drifted together to such a consistency that it would be possible to cut out of it blocks for building material. And during these months no hunter would let his wife and his children lie freezing in a skin tent. The season of the snow-houses only comes when the first hunting excursion begins, with the return of the light period.

The lines of the Eskimo migration from the north to the east coast were previously drawn through Peary Channel, through which one could penetrate from Nordenskjöld Fjord into Independence Fjord without leaving the coast, conveniently hunting game on both shores. As we have now succeeded in proving that instead of sea one meets here with a belt of ice of considerable breadth, this short cut also is eliminated. Remains then only the inland-ice, in as far as it can be traversed behind Peary Land's north coast from Nordenskjöld to Independence Fjord. But the conditions for an ascent are very



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difficult here, because of the floating inland-ice and its crevasses; and even if these were passable, a sensible man with wife and children would hardly set out on a 200 kilometres long wandering through the waste if he did not know anything beforehand about the natural conditions with which he would meet when at last the risky journey had come to an end. If a wandering from the north-west to the north-east of Greenland has taken place, there is only the way north of Peary Land; but no conditions for existence are offered here.

To sum up, all observations made during the expedition point to the probability that in Melville Bay we must look for the great main route which has led the Eskimos from the North American Archipelago to Greenland.

The entire migration has gone southward, and even to the east coast they have come south of Cape Farewell. It has been maintained that the collections brought home from the north of East Greenland point towards north, but even such an argument appears to me futile to discuss. For it would seem much more natural to relate the North-East Greenlanders to tribes which have been offshoots from the colony at Angmagssalik, which has no doubt always been thickly populated. Right down to the time of the colonization there were people here who went north, and many hunting traditions point to a north-going movement. Along this coast there are no passages which can compare with the stretch between Hall Basin and Independence Fjord. As these people from the sub-Arctic climate gradually settled down under quite different conditions and quickly became acclimatized and adapted their tool-making technique to a definite or exclusive winter culture, so everything found after them will bear the high Arctic stamp, although it must not necessarily have come southward from the north, wherefrom no way is to be found. And could anybody imagine a folk-wandering—and that numerically a rather large one—traversing more than 1,000 kilometres along the coast without leaving the slightest trace? The tent-rings in Independence Fjord must therefore be due to reconnoitrings from Sophus Müller Point.

In full accordance with the views here maintained, we lose the traces of a folk-wandering, both on the west and the east coast of Greenland, in and with the localities where the sealing during the hunts of spring and summer cannot form the base of an existence such as the Eskimo desires.



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